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# General Index

J. I. Smith

1988-1991

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J. I. Smith

1988-1991

Catalogue #100-275







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1988

# Catalog

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JS 100

Song Sparrow Melospiza melodia

1 mi. W Hobart  
M: 115 6000 ft

Prosser Creek 3.3 mi S of Sagehen Creek Field Station

5840 ft

Nevada Co., Calif

28 June 1988. Huge cloacal protuberance 7mm

No brood patch, ~~moderate~~<sup>little</sup> Fat. Lots of glandular tissue  
surrounding cloacal protuberance. Liver, heart, breast,  
Kidney. Looks like dragon fly larvae in mouth 2 seen

Testes L 10.5 x 7.6mm R 8.5 x 7.5mm. Skin partial skel.

1 mi W Hobart Male <sup>5840</sup> 6000 ft

JS 101

Prosser Creek 3.3 mi S of Sagehen Field Station, Nevada Co., CA

Melospiza melodia fisherella. 29 June 1988. 20.65g

Cloacal protuberance 6.82mm. No brood patch. Little Fat.

Glandular tissue of protuberance. Liver, heart, muscle

Kidney taken. Crop empty. Testes R 7.87 x 6.98mm

L 9.21 x 6.23mm. Skin partial skel

JS 102

Melospiza melodia fisherella 29 June 1988. 21.4g

♂, no fat, SK. ossified. Crop empty T L 9.5 x 7.0mm

R 8.5 x 8.1mm. Tissue taken SK. oss. SK. partial skel

JS 103

Melospiza melodia fisherella 29 June 1988. 22.0g ♂ <sup>ad.</sup> SK. oss.

Cloacal protuberance 7.53mm. No brood patch. Crop empty.

Testes ~~♂~~ L 9.73 x 6.20mm; R 8.51 x 7.09mm. Tissue

taken. Skin partial skel. Little fat. ♀

JS 104

M. melodia fisherella ♀. 29 June 1988. wt. 18.7g. Non-vascular

brood patch. Ovary 7.6 x 5.5mm largest follicle = 6.7mm. Netted  
with juvenile. JS 105. Net by Prosser Creek. No fat. Tissues taken







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# Catalog

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Prosser Creek 3.3 mi S Sagehen Field Sta <sup>5840</sup> mi W Hoback Mills, ~~6000~~ ft  
Nevada Co., California

J15105 Melospiza melodia fisherella juv. ♀ wt. 17.9g 29 June 1988  
Little fat. Ovary 1.5 x 2 mm - pinkish. Netted with female  
J15104. near stream. gape yellow. Tissues taken

J15106 Melospiza melodia fisherella juv. ♀ wt 18.5gm sk. not oss.  
Ovary 2.2 x 1.3 mm no fat. Gave buzzy calls in hand (not recorded)  
29 June 1988 Tissues taken.

J15107 Melospiza melodia fisherella ad ♂ 7.3 mm cloacal protuberance  
wt. 20.0g. T: L 8.0 x 5.9; R 6.9 x 5.8. no fat,  
29 June 1988 no brood patch. Tissues taken

J15108 Melospiza melodia fisherella ♂ ad. sk. 29 June 1988 wt. 19.35g  
T: L 8.68 x 6.02 mm; R 7.7 x 6.4 mm slight fat. no brood patch  
Tissues taken

J15109 Melospiza melodia fisherella ♂ ad sk cloacal protuberance 7.31 mm  
29 June 1988 Testes L 8.72 x 6.25; R 8.09 x 6.81 mm. slt fat  
wt 21.2g no brood patch. Tissues taken.

~~J15107 Melospiza melodia fisherella ♂ ad. 29 June 1988. no fat. wt. 20.0g  
7.3 mm cloacal protuberance. Testes L 8.0 x 5.9 mm;  
R - 6.9 x 5.8 mm.~~

J15110 Melospiza melodia fisherella ♂ ad 30 June 1988. slight fat  
cloacal protuberance 6.41 mm. Testes L 8.78 x 6.18 mm;  
R 8.49 x 6.90 mm no brood patch. Tissues taken

J15111 Melospiza melodia fisherella ♂ ad. 30 June 1988. slight fat  
cloacal protuberance 7.16 mm. Crop empty. Testes L - 8.55  
x 6.16 mm; R 8.02 x 6.98 mm. no brood patch. Tissues taken

J15112 Melospiza melodia fisherella ♂ ad. 30 June 1988. slight fat  
wt. ~~19.80g~~ 19.80g. cloacal protuberance 6.41. Testes L 7.80 x 5.84;  
R 6.62 x 6.54 mm no brood patch. Tissues taken







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5840

Prosser Creek, 3.3 mi S of Sagehen Field Station and 1 mi W of Hobart Mills,  
Nevada Co., Calif.

JIS 113 Melospiza melodia fisherella. ♂ ad. 30 June 1988. wt. 22.05g  
slt. fat. Cloacal protuberance 6.14 mm. Testes L 8.44 x 5.92 mm  
R 6.54 x 7.11 mm no brood patch Tissues taken

JIS 114 Melospiza melodia fisherella. ♂ ad. 30 June 1988. wt 19.30g  
slt. fat. Cloacal protuberance 6.50 mm. Testes L 9.95 x 5.51;  
R testes is damaged. no brood patch. Tissues taken.

JIS 115 Melospiza melodia fisherella. ♂ ad 1 July 1988. wt 19.25g  
mod. fat. no brood patch. Cloacal protuberance 4.31 mm  
crop empty. Testes L 9.10 x 6.36 mm; R 8.36 x 6.50 mm  
Tissues taken poss note  
JIS 116

JIS 116 Melospiza melodia fisherella ♀ ad sk 1 July 1988. wt 20.25g  
Brood patch. mod. fat. Cloacal protuberance 4.35 mm.  
Largest follicle 2.28 mm. Crop empty. Tissues taken. Poss. Male  
JIS 115

JIS 117 Melospiza melodia fisherella. ♂ ad sk. <sup>1 July 1988</sup> wt 18.70. mod fat  
Cloacal protuberance 4.59 mm. Testes L 8.55 x 5.93;  
R 6.91 x 6.93 mm. No brood patch. Crop empty.  
Tissues Taken

Alder Creek, 4 mi W Hobart Mills, 6100 ft  
Nevada Co., California

JIS 118 Melospiza melodia fisherella ♀ ad. 2 July 1988. wt 20.8g  
Little fat. Oviduct enlarged, active brood patch, ovary 8.4 x  
5.3 mm, largest follicle = 1.5 mm. Tissues taken

JIS 119 Melospiza melodia fisherella. ♂ ad. 2 July 1988. wt 21.95g  
cloacal protuberance 4.81 mm, no brood patch, Testes:  
L 9.15 x 6.45 mm ad R 8.09 x 6.73 mm. Slt. Fat  
Crop empty








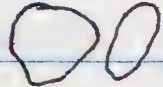
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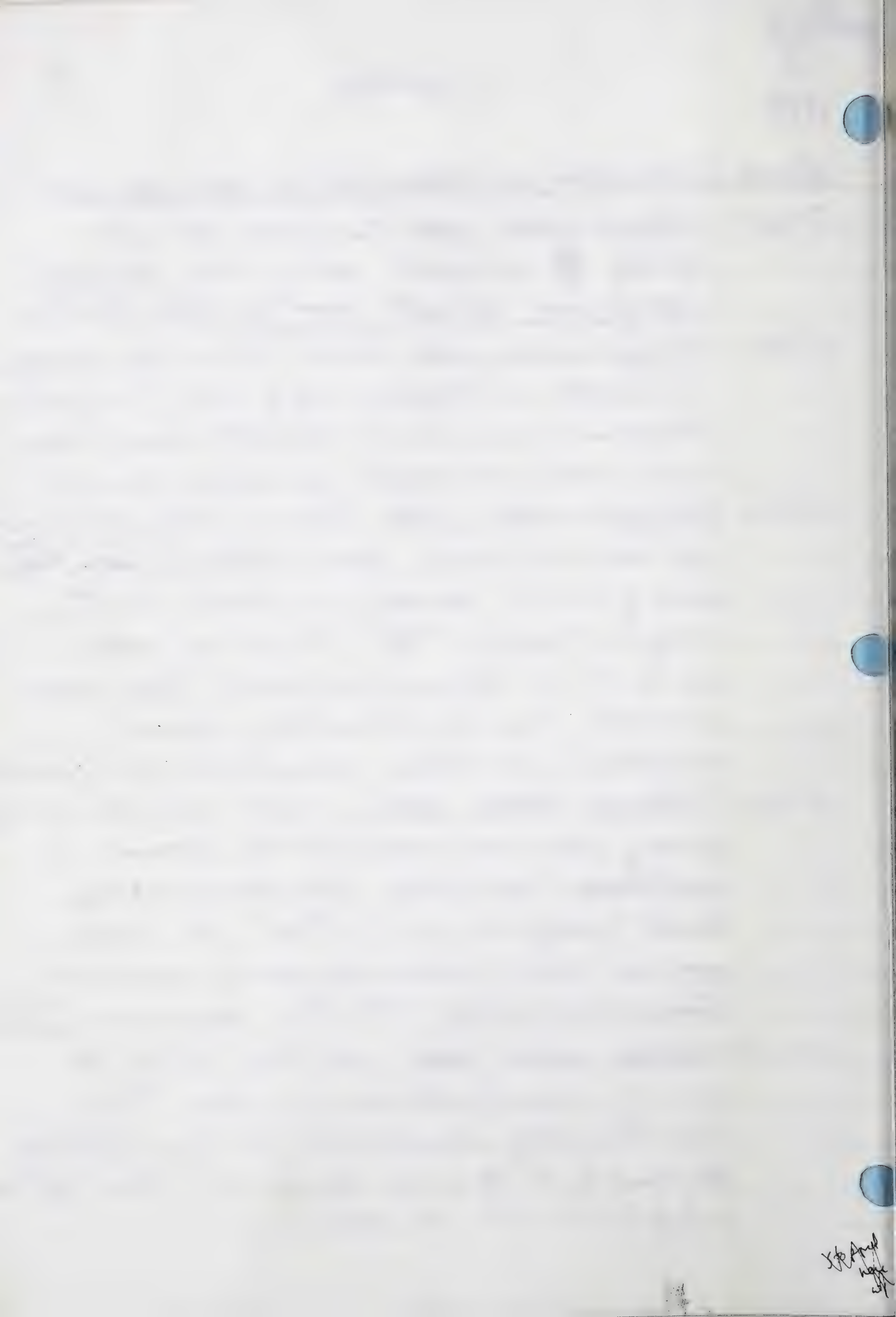
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Russell Tree Reservation, 2 mi NW of Lafayette, Contra Costa Co., Calif. 1300 ft

- J15120 Melospiza melodia gouldii ♀ ad. st. 17 Mar 1989. wt —  
left ovary  no broodpatch. mate of J15121. Tissue saved.  
Stomach saved. Tail molt. Banded 2031-08906 / YL/FW<sup>wh</sup> / BK  
Taken by Sharp-shinned Hawk in mist net. SKin: partial skel.
- J15121 Melospiza melodia gouldii. ♂ ad sk. 17 Mar 1989 wt 19.5g  
 testes. no broodpatch. mate of J15120. Tissue saved  
Gonads and stomach saved. Tail molt. Taken by Sharp-  
shinned Hawk while caught in mist net. SKin: partial skel.
- J15122 Melospiza melodia gouldii ♂ ad. SK. 6 May 1989. wt 19.0g  
left Testes 6.41 x 8.42 mm. cloacal protuberance 6.11 x 5.70 mm  
mate of J15123. Banded 2031-08942 / YL/FW<sup>BL</sup> / WH  
Sitting on 4 young of FW/BK's (J15130 ÷ 131) nestlings  
are J15124-127. Their young were raised by FW/BK's and are  
J15128-9. Tissue saved but no kidney. cloacal  
protuberance 6.11 x 5.70 mm stomach saved. SKin: partial skel
- J15123 Melospiza melodia gouldii ♀ ad. sk. 6 May 1989. wt 15.5g  
left ovary 6.49 x 3.17 mm. mate of J15122. Cloacal  
protuberance 3.66 x 3.64 mm. Tissue saved but no kidney.  
Raised 4 nestlings (J15124-7) of FW/BK's. Her actual  
young are J15128-9 which were raised by J15130 ÷ 131.  
Banded 2031-08941 / YL/FW<sup>PK</sup> / YL. stomach saved. SKin: partial skel
- J15124 Melospiza melodia gouldii imm. (~9 days) 6 May 1989  
wt. 12.5g. Cloacal protuberance 2.5 x 3.89 mm. Tissue  
saved but no kidney. stomach saved. Nestling of J15130 ÷ 131  
but reared by J15122 ÷ 123. Banded 2031-08940 / YL/FW<sup>wh</sup> / BK  
sib of J15125-127. SKin at partial skel.





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Russell Lee Reservation, 2 mi NW Lafayette, Contra Costa Co., Calif. 1388 ft

J15125 Melospiza melodia gouldii imm. <sup>~9 days</sup> 6 May 1989. wt 13.0g

Nestling of J15130-131 but reared by J15122; 123. Sib of

J15124, 126-7. Tissue saved but no kidney. <sup>Banded 2031-08939</sup> 4/4 FW <sup>RO/WH</sup> SKIN: partial skull. Stomach saved.

J15126 Melospiza melodia gouldii imm. <sup>~9 days</sup> 6 May 1989. wt 14.5g

nestling of J15130; 131 but reared by J15122; 123. Sib of J15124-5

and 127. Tissue saved but no kidney. <sup>Banded 2031-08939</sup> 4/4 FW <sup>OK/BR</sup> SKIN: partial skull. Stomach saved.

J15127 Melospiza melodia gouldii imm. <sup>~9 days</sup> 6 May 1989. wt 14.0g

nestling of J15130; 131 but reared by J15122; 123. Sib of J15124-126.

Tissue saved but no kidney, stomach saved. <sup>Banded 2031-08940</sup> 4/4 FW <sup>OK/BR</sup> SKIN: partial skull.

J15128 Melospiza melodia gouldii imm. <sup>~9 days</sup> 8 May 1989. wt 14.5g.

nestling of J15122; 123 but reared by J15130; 131. Sib of J15129.

Tissue saved. cloaca 3.20 x 4.47 mm. wing length 35.91

10's emerged 12.25 mm. Back feathers 17.04 mm emerged 10.94 mm

Only 1 ulna saved, both tibia broken. Stomach saved.

Banded 2031-08947 / FW/BK <sup>OK/WH</sup> SKIN and partial skull.

J15129 Melospiza melodia gouldii imm. <sup>~9 days</sup> 8 May 1989. wt 13.75g

nestling of J15122; 123 but reared by J15130; 131. Sib of J15128.

Tissue saved. Stomach saved. cloaca 4.12 x 3.75 mm

wing length 39.13 third from outer 10's emerged 15.63 mm. Back 16.28 mm

12.14 emerged. On left side 3 10's pulled out during prep. Only one 1

ulna saved. SKIN: partial skull. Banded 2031-08946 / FW/BK <sup>GR/BL</sup>

J15130 Melospiza melodia gouldii ♀ ad sk. 8 May 1989. wt. 16.75g

left wing 5.69 x 7.08 mm. Brood patch present. mate of J15131.

clonal protuberance 4.59 x 4.95 mm. Tissue saved. Stomach

saved. Reared J15128-129, but parent of J15124-127.

SKIN: partial skull.

wing length 53.06, Tail length 57.32 mm, Tarsus 18.17, Middle toe 18.06,

hallux with claw 13.53, Bill length 8.06, Bill depth 5.55, Bill width 4.66, Brood patch <sup>NO</sup> molt.







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wing length 31.58mm, tail length 5.31mm, tarsus 16.46mm, middle toe 20.05mm,







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Sagehen Creek Field station, 3 mi NW Hobart Hills, Nevada Co, Calif 6300ft.

JIS 134  
(cont.)

hallery with claw 11.42 mm, molt: 3rd 1°  $\frac{4.69}{21.03}$  mm, Back  $\frac{7.15}{12.12}$  mm  
+ belly  $\frac{3.90}{7.06}$  mm. Skin + partial skeleton.

JIS 135

Melospiza melodia fisherella imm. 2 June 1989, wt. 14.50 gms.

cloacal protub. 4.47 x 3.65 mm. Tarsus saved, stomach saved. Left tibia broken. Banded 2031-08958, Rt. leg yellow. Nestling of JIS 137 + 138, sibling of JIS 133-4 + 136. Bill length 4.92 mm, Bill depth 3.98 mm, Bill width 3.61 mm, wing length 36.15 mm, Tail length 7.71 mm, Tarsus 18.39 mm, Middle toe 20.34 mm, hallery with claw 12.36 mm. Molt: 3rd 1°  $\frac{5.98}{25.07}$  mm, Back  $\frac{8.20}{13.70}$ , + belly  $\frac{7.01}{9.70}$ . Skin + partial skeleton.

JIS 136

Melospiza melodia fisherella imm. ♂? 2 June 1989, wt. 12.25 gms.

cloaca 4.26 x 4.26 mm. Tarsus saved, stomach saved. Testes?:

left 2.81 x 1.38 mm, Rt. 1.93 x 1.16 mm. Banded 2031-08960, Rt. leg yellow.

Nestling of JIS 137 + 138, sibling of JIS 133-5. Bill length 5.08 mm, Bill depth 3.52 mm, Bill width 3.58 mm, wing length 35.75 mm, Tail length 6.52 mm, Tarsus 18.49 mm, Middle toe 20.27 mm, hallery with claw 12.31 mm. Molt: 3rd 1°  $\frac{6.81}{24.53}$  mm, Back  $\frac{6.92}{12.46}$  mm, Belly  $\frac{6.52}{9.09}$  mm. Skin + Partial skeleton.

JIS 137

Melospiza melodia fisherella ad. sk. ♂. 2 June 1989, wt. 19.00 gms.

Cloacal protuberance 6.28 x 5.51 mm. Tarsus saved, stomach saved.

Testes: left - 7.36 x 5.31, Rt. - 7.16 x 7.22 mm. Mate of JIS 138, parent

of JIS 133-6. Banded 2031-08920  $\frac{1}{2}$  FW BK GR. Tarsus saved,

Stomach saved. Bill length 9.23 mm, Bill depth 5.97 mm, Bill width 5.83 mm,

Wing length 65.65 mm, Tail length 69.20 mm, Tarsus 17.91 mm, Middle toe 19.08 mm,

hallery with claw 13.92 mm. No molt, No brood patch, No fat. Skin + Partial skeleton.

JIS 138

Melospiza melodia fisherella ♀ ad. sk. 2 June 1989, wt. 18.25 gms.

cloacal protub. 4.34 x 2.89 mm. Tarsus saved, stomach saved - parasite

saved with stomach, it was found in the body cavity. Ovaries: left - 6.29 x 4.28 mm.

Banded 2031-08953  $\frac{1}{2}$  FW BK RD. Bill length 8.62 mm, Bill depth 6.04 mm,







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Sagehen Creek Field Station, 3 mi NW Hobart Mills, Nevada Co., Calif., 6300 ft.

JIS 138 (cont) Bill width 4.65 mm, wing length 62.77 mm, Tail length 66.99 mm, Tarsus 19.16 mm, Middle toe 17.95 mm, hallux with claw 14.93 mm. No molt, Broodpatch present, No fat. Skin + Partial skeleton. <sup>Mate of JIS 137.</sup> Parent of JIS 133-6.

Russell Hill Reservation, 2 mi NW Lafayette, Contra Costa Co., Calif., 1300 ft.

JIS 139 *Melospiza melodia gouldii* 9 days old. 4 June 1989. wt. 13.00 gms.

sex? Cloaca 4.42 x 3.42 mm. Tarsus saved, stomach saved, tibia

broken. Banded 2031-08957 left leg + rt leg <sup>SK/PK</sup>. Parents are

PK/FW BK <sup>JIS 164</sup> RD ♀ ad PK/FW BL <sup>JIS 160</sup> BK ♂ (FWS # 2031-08908 ♂ + 2031-08936 ♀)

(with one other egg)  
But this chick was transferred as egg to Sagehen Creek Field Station

3 mi NW Hobart Mills, Nevada Co., Calif 6300 ft on 25 May 1989 (see field

notes.) I collected this individual from foster parents <sup>JIS 176</sup> PK/RD <sup>wh</sup> FW ♂

and ~~unidentified~~ ♀ BL/BK <sup>wh</sup> FW (FWS # <sup>1431</sup> ~~2031~~ -14513 ♂ + 2031-08954 ♀)

Bill length 4.66 mm, Bill depth 3.53 mm, Bill width 3.18 mm, wing length 31.10 mm,

Tail length 4.33, Tarsus 19.26 mm, Middle toe 17.76 mm, hallux with claw

12.19 mm. Molt: 3rd 10 1.62 mm <sup>5.77</sup> / 20.33 mm, Back 9.55 mm, belly <sup>6.89</sup> / 13.79.

Skin + Partial skeleton. Light prealar fat.

JIS 140 *Melospiza melodia gouldii* imm. sex? 9 June 1989. wt. 18.50 gms.

Cloaca 3.00 x 1.55 mm. Tarsus saved, stomach (cut in half) saved --

had many seeds with one unidentified green beetle elytra. 2 ticks found

on rt. side of head were saved with stomach. Banded 1431-14522 left leg,

rt. leg <sup>PK/BK</sup>. Tarsus of <sup>JIS 150</sup> FW/BL PK/BK ♂ ad FW/BL <sup>YL</sup> PK/RD ♀ (FWS # 2031-08917 ♂ +

2031-08916 ♀) Reared by <sup>PK/FW</sup> BK/RD ♀ ad <sup>PK</sup> FW/BL (BL/BK ♂ (FWS # 2031-08908

+ 2031-08936 ♀.) Bill length 8.35 mm, Bill depth 5.56 mm, Bill width 4.75 mm,

wing length 57.04 mm, Tail length 56.43 mm, Tarsus 17.41 mm, Middle toe 19.26 mm,

hallux with claw 13.58 mm, Molt: lacking belly feathers, Much fat.

Skin and Partial skeleton. Sib JIS 157







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Sagehen Creek Field Station, 3 mi NW Hobart Mills, Nevada Co., Calif., 16300 ft.

JIS 141 *Melospiza melodia fisherella* imm. ♀? 11 June 1989. wt. 15.50 gms.  
Young of JIS 145 + 146, sib of JIS 142-144. Tarsus saved, stomach  
saved. Ovary:  $2.42 \times 0.91$  mm. Cloaca  $5.39 \times 3.51$  mm. Bill  
length 5.20 mm, Bill depth 4.07 mm, Bill width 3.94 mm, Wing length  
36.86 mm, Tail length  $\frac{2.65 \text{ emerged}}{8.67}$  mm, Tarsus 18.85 mm, Middle  
Toe 20.66 mm, Hallux with claw 13.01 mm. Molt: 3rd 1°  $\frac{11.53 \text{ emerged}}{27.24}$  mm,  
back  $\frac{10.86}{13.33}$  mm,  $\frac{10.86}{13.83}$  mm. Much fuscular and shoulder fat.  
Skin + Partial skeleton.

JIS 142 *Melospiza melodia fisherella* imm. ♂? 11 June 1989. wt. 15.00 gms.  
Parents are JIS 145 + 146, sib of JIS 141 + 143-4. Tarsus saved,  
stomach saved. Testes?: left  $2.41 \times 1.27$  mm, RT  $2.01 \times 1.02$  mm  
Cloaca  $3.88 \times 4.57$  mm. Bill length 5.65 mm, Bill depth 4.27 mm,  
Bill width 4.04 mm, Wing length 38.29 mm, Tail length  $\frac{3.00 \text{ emerged}}{11.26}$  mm,  
Tarsus 18.24 mm, Middle Toe 22.02 mm, Hallux with claw 12.96 mm,  
Molt: 3rd 1°  $\frac{14.24 \text{ emerged}}{28.16}$  mm, Back  $\frac{9.78}{17.01}$  mm + Belly  $\frac{11.68}{15.85}$  mm. Some  
pure fat. Skin + Partial skeleton.

JIS 143 *Melospiza melodia fisherella*. imm. ♂? 11 June 1989. wt. 13.50 gms.  
Parents are JIS 145 + 146, sib of JIS 141-2 + 144. Tarsus saved,  
stomach saved. Testes?: left  $0.90 \times 0.80$  mm, RT  $1.03 \times 0.91$  mm.  
Cloaca  $4.91 \times 3.52$  mm. Bill length 5.49 mm, Bill depth 4.05 mm,  
Bill width 4.08 mm, Wing length 37.89 mm, Tail length  $\frac{3.07 \text{ emerged}}{11.89}$  mm, Tarsus  
18.74 mm, Middle Toe 22.47 mm, Hallux with claw 13.42 mm, Molt:  
3rd 1°  $\frac{13.32 \text{ emerged}}{27.68}$  mm, Back  $\frac{10.57}{14.91}$  mm + Belly  $\frac{9.67}{13.50}$  mm. Much fuscular  
fat. Skin + Partial skeleton.







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~~Sagehen Creek Field Station, 3 mi NW Hobart Mills, Nevada Co, Calif, 6300 ft~~

JIS 144 *Melospiza melodia feshuella*. imm ♂? 11 June 1989. wt. 13.00gms.  
 Testis saved, stomach saved. Testes?: left -  $1.83 \times 0.92$  mm +  
 Rt. -  $2.10 \times 1.65$  mm. Skin + Partial skeleton. Parents are JIS 145 + 146,  
 sib of JIS 141-143.

JIS 145 *Melospiza melodia feshuella* ♀ ad. sk. 11 June 1989. wt. 17.00gms.  
 Mate of JIS 146, Parents of JIS 141-144. Testis saved, stomach  
 saved. Ovary: left -  $7.27 \times 4.31$  mm, largest follicle 1.91 mm. Cloaca  
 $2.70 \times 3.31$  mm. Bill length 8.28 mm, Bill depth 6.08 mm,  
 Bill width 5.22 mm, Wing length 59.65 mm, Tail length 60.18 mm,  
 Tarsus 18.95 mm, Middle toe 21.86 mm, Hallux with claw  
 15.67 mm, Molt - Right outer tail feather broken, No fat,  
 Broodpatch present. Skin + Partial skeleton.

JIS 146 *Melospiza melodia feshuella* ♂ ad. sk. 11 June 1989. wt. 19.00gms.  
 Mate of JIS 145, parent of JIS 141-144. Banded Fw/wh BL/BK (FWS#  
 2031-08930). Testis saved, stomach saved. Testes: Rt  $7.42 \times$   
 $5.93$  mm + left  $10.13 \times 4.47$  mm. Cloaca  $7.70 \times 8.32$  mm. Bill  
 length 8.94 mm, Bill depth 6.04 mm, Bill width 5.11 mm, Wing length 62.57 mm,  
 Tail length 67.29 mm, Tarsus 18.28 mm, Middle toe 21.27 mm,  
 No molt; No fat, No broodpatch. Skin + Partial skeleton.

~~Mrs. Russell Tree Reservation, 2 mi. NW Lafayette, Contra Costa Co, Calif, 1300 ft~~

JIS 147 *Melospiza melodia gouldii* fledgling sk. immos. 15 June 1989. wt. 17.50gms.  
 Testis saved, stomach saved, tapeworm-like parasite found in kidney  
 saved with stomach. Bill length 8.24 mm, Bill depth 5.31 mm, Bill width  
 4.28 mm, Wing length 53.94 mm, Tail length 58.82 mm, Tarsus 17.32 mm,  
 Middle toe 18.63 mm, Hallux with claw 14.00 mm, Molt - only 10 Tail  
 feathers, belly feathers only just coming in. Much furcular + sternal fat.  
 Skin + Partial skeleton.







with, J

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Sagehen Creek Field Station, 3 mi. NW Hobart Mills, Nevada Co., Calif., 6300 ft

JIS 148 *Melospiza melodia fuscescens* fledgling ♂? 22 June 1989. wt 20.00gms.  
Parents are FW/BR RD/OR ♂<sup>JIS 168</sup> and FW/BR BL/YR ♀<sup>JIS 171</sup> (FWS# 1431-14512 ♂ + 1431-14516 ♀) reared by BL/FW GR/OR ♀<sup>JIS 172</sup> and BL/FW PK/BL ♂<sup>JIS 172</sup> (FWS# 2031-08921 ♂ + 2031-08949 ♀.) Sibling of JIS 149.  
Banded 2031-08955 left leg, Y/BKRT leg. Tissue saved, stomach saved, Tongue cut. Testes? left 1.71 x 0.90 mm + Rt - 1.44 x 0.87 mm.  
Bill length 7.25 mm, Bill depth 5.22 mm, Bill width 4.63 mm, Wing length 65.44 mm.  
Tail length <sup>49.58 mm</sup> ~~58.98 mm~~, Tarsus 17.87 mm, Middle Toe 20.12 mm, Hallux with claw 13.54 mm, cloaca 3.73 x 2.90 mm. Molt: Tail not fully emerged, 10's not fully emerged. Very Fat, Skin + Partial skeleton.

JIS 149 *Melospiza melodia fuscescens* ♂? Fledgling 22 June 1989. wt. not taken  
Sibling of JIS 148, Parents are FWS# 1431-14512 + 1431-14516<sup>JIS 168</sup> reared by 2031-08921 + 2031-08949<sup>JIS 172</sup>. Banded 2031-08956  
Tissue saved, stomach saved, only Rt Tarsus saved.  
Gonads? left - 1.20 x 0.92 mm; Rt - 1.22 x 0.94 mm.  
Bill length - shot ... wing length 66.01 mm, Tail length 59.85 mm  
Tarsus 17.66 mm, Middle Toe 21.27 mm, hallux with claw 13.51 mm  
cloaca 5.21 x 3.51 mm. Molt. Tail not fully emerged. <sup>SKIN +</sup> <sup>PARTIAL</sup> <sup>SKEL.</sup>

Russell Lake Reservation, 2 mi NW Lafayette, Contra Costa Co., Calif., 1300 ft

JIS 150 *Melospiza melodia gouldii* ♂ ad. sk. 14 July 1989. wt. 19.00gms.  
Reared JIS 155 but parent of JIS 140. Banded <sup>JIS 157</sup> FW/BL PK/GR 2031-08917  
Tissue saved, stomach saved, tongue saved. Gonads: left - 2.87 x 1.55 mm + Rt - 2.38 x 1.00<sup>(?)</sup>. Head + left leg shot. Bill length 10.11 mm, Bill depth 5.96 mm  
Bill width 5.26 mm, wing length 58.15 mm, Tail length 57.55 mm, Tarsus 18.08 mm  
middle toe 20.17 mm, hallux with claw 14.85 mm, cloaca 3.75 x 6.43 mm.  
Molt: Primaries 1-4 emerging, 4th is complete pin, tail molt except for Rt #2, belly molt.  
Slight FAT. SKIN + partial skel.







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Russell Tree Reservoir, 2 mi NW Lafayette, Contra Costa Co., California, 1380ft

JIS 151

Melospiza melodia gouldii. Hux SK. imm. sex ♂ wt. 19.00 gms.

Fledgling of ♂ 2031-08902 <sup>GR/FW</sup> <sup>OR/BK</sup> + ♀ 2031-08943 <sup>BL/FW</sup> <sup>BL/RO</sup> reared by ♂ 2031-08910 <sup>OR/FW</sup> <sup>BL/RO</sup>.

Banded 2031-08951 <sup>OR/FW</sup> <sup>BL/X</sup>. 16 July 1989. Tissue saved, stomach saved; gonads: left - 2.13 x 1.53 mm + RT - 2.00 x 1.43 mm. Bill length 8.23 mm, Bill depth 5.66 mm, Bill width 4.97 mm, wing length 55.30 mm, Tail length 56.95 mm, Tarsus 19.03 mm, middle toe 18.92 mm, hallux with claw 13.80 mm, cloaca 3.37 x 3.37 mm. Molt - upper + under wing coverts, tail coverts, belly and back. Mod. Fat. SK + partial skel.

Sagehen Creek Field Station, 3 mi NW Hobart Mills, Nevada Co., California, 8300ft

JIS 152

Melospiza melodia fisherella. sex? Fledgling. 28 July 1989. wt. 16.50 gms.

Sibling of JIS 153; Banded 2031-08990 left ad Red Lt. Parents are ♂ <sup>JIS 175</sup> <sup>BF/BL</sup> <sup>RD/FW</sup> 2031-08932 + ♀ 2031-08952 <sup>OR/YL</sup> <sup>RD/FW</sup> <sup>JIS 169</sup>.

Tissue saved, + stomach saved. Gonads not found. Rt Tibia broken. Tissue was in body for > 4 hrs after death. Bill length 7.65 mm, Bill depth 5.27 mm, Bill width 4.34 mm, wing length 62.08 mm, Tail length\* 55.36 mm, Tarsus 20.01 mm, Middle toe 19.75 mm, Hallux with claw 14.92 mm, cloaca 3.75 x 2.54 mm. \* Molt - upper tail coverts, tail, underwing coverts. No FAT. SK + partial skel.

JIS 153

Melospiza melodia fisherella. SK. imm. Fledgling ♂. 29 July 1989. wt 22.00 gms.

Sibling of JIS 152, Parents are ♂ <sup>JIS 175</sup> <sup>BF/BL</sup> <sup>RD/FW</sup> 2031-08932 + ♀ <sup>JIS 169</sup> <sup>OR/YL</sup> <sup>RD/FW</sup> 2031-08952. Banded 2031-08989

right + Red left. Tissue + stomach saved. Gonads: left - 1.30 x 0.65 mm + RT - 1.20 x 0.92 mm. Bill length 7.75 mm, Bill depth 5.52 mm, Bill width 4.85 mm, wing length 66.79 mm, Tail length\* 55.07 mm, Tarsus 18.10 mm, middle toe 22.48 mm, hallux with claw 14.94 mm, cloaca 4.85 x 2.20 mm. Molt\* - underwing coverts + tail. Moderate Fecular Fat. Left leg shot. SK + partial skel.

JIS 154

Melospiza melodia fisherella. ♂ fledgling. 29 July 1989. wt. 21.00 gms.

Unbanded. Tissue + stomach saved. Only Rt tibia saved. ~~Bill length~~







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Sagehen Creek Field Station, 3 mi. NW Hobart Mills, Nevada Co., California 6300 ft  
JIS 154 (cont.) Gonads: Rt -  $1.12 \times 0.82$  mm + Lt -  $0.72 \times 0.48$  mm. Left leg shot.  
Bill length 7.75 mm, Bill depth 6.08 mm, Bill width 5.33 mm, Wing length 66.61 mm,  
Tail length\* 66.89 mm, Tarsus 19.75 mm, Middle Toe 19.59 mm, Hallux with  
claw 14.79 mm, Cloaca  $3.53 \times 3.00$  mm. Molt\* - tail not fully emerged.  
Slight Fat. Skin + Partial Skel.

Russell Tree Reservation, 2 mi NW Lafayette, Contra Costa Co., California 1300 ft  
JIS 155 Melospiza melodia gouldii imm. ♀. large sk. wind. 3 August 1989. wt 18.00 gm.  
Banded 1431-14519 left + Bl/Rt, North of PK/FW Bl/BK ♂ 2031-08908 + ♀  
PK/FW Bl/Rt 2031-08936, but reared by 2031-08916 + 2031-08917 (JIS 156).  
Gonads left away  $3.27 \times 1.63$  mm. Crop full of Chick scratch. Bill length 8.69 mm,  
Bill depth 5.62 mm, Bill width 5.18 mm, Wing length 54.87 mm, Tail length 54.87\* mm,  
Tarsus 18.27 mm, Middle Toe 18.77 mm, Hallux with claw 15.65 mm, Cloaca  
 $3.64 \times 1.46$  mm. Molt - 8th primary, tail + coverts, head, back + belly.  
Skin + partial skel. Tissue + stomach saved.

JIS 156 Melospiza melodia gouldii imm. (Young of Year) ♂. 10 August 1989. wt. 21.50 gm.  
Banded 1431-14517 left + Bl/PK right. North of ♀ 2031-08933 Bl/FW OR/PK +  
♂ 2031-08904 Bl/FW PK/Rt. Tissue saved + stomach saved. Gonads:  
Lt -  $0.78 \times 0.78$  mm + Rt -  $0.92 \times 0.75$  mm. Left Tibia Broken. Bill length 7.88 mm,  
Bill depth 5.76 mm, Bill width 4.92 mm, wing length 55.79 mm, Tail length 64.08 mm.  
Tarsus 17.50 mm, Middle Toe 19.80 mm, Hallux with claw 13.58 mm, Cloaca  
 $3.59 \times 5.59$  mm, Molt - Under + upper wing coverts, Primaries 7-9 are  $\frac{1}{2}$  emerged,  
Tail coverts, Right side of tail 3rd feather from outside  $\frac{1}{2}$  emerged, 1st outer feather  
shot slightly in pin, left side of tail fully emerged. Much Fat. Skin + Partial Skel.

JIS 157 Melospiza melodia gouldii ♀ imm. large skull. windows. 12 August 1989 wt 19.00 gm.  
Banded 1431-14521 left + PK/BK right (reared by JIS 160 ♂). Parent  
is JIS 190 ♂ + sib of JIS 140. Tissue + stomach saved. Left ovary  
 $0.92 \times 0.81$  mm. Bill length 8.76 mm, Bill depth 5.66 mm, Bill width 4.85 mm.







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~~Russell Lake Reservoir, 2 mi NW Lafayette, Contra Costa Co., California, 1300 ft~~

J15157 (crit) Wing length 60.44 mm, Tail length 59.7 mm, Tarsus 18.68 mm, Middle Toe 18.60 mm, Hallux with claw 14.07 mm, Cloaca 2.79 x 3.21 mm, Molt - left outer tail feather just a little bit of 5 left left. Much fat. Skin + partial skel.

J15158 *Melospiza melodia gouldii* ♀? imm. lay sk. wind. 12 Aug 1989 wt. 20.00 gms. Unbanded. Gonads and uterine short. Tissue + Stomach saved. Bill length 8.40 mm, length 5.67 mm, Bill width 4.83 mm, Wing length 56.26 mm, Tail length 58.59 mm, Tarsus 18.16 mm, Middle Toe 19.7 mm, Hallux w/ claw 13.70 mm, Molt - underwing + tail coverts + back. Some fat. Skeleton Only.

J15159 *Melospiza melodia gouldii* ♀ imm lay sk. wind. 15 August 1989. wt 17.50 gms. Unbanded. Gonads - 3.59 x 1.72 left ovary. Tissue (in body 2 hrs after death) + Stomach saved. Bill length 8.71 mm, Bill depth 5.70 mm, Bill width 4.89 mm, Wing length 53.85 mm, Tail length \* 55.31 mm, Tarsus 17.28 mm, Middle Toe 18.34 mm, Hallux with claw 13.45 mm, Cloaca 4.14 x 3.20 mm. Molt - 7<sup>th</sup> + 8<sup>th</sup> primary are 7/8's emerged, tail <sup>coverts</sup> ~~emerged~~, underwing coverts, tail 7/8's out. Much fat. Skel. only.

J15160 *Melospiza melodia gouldii* ♂ ad. sk. 17 August 1989. wt 20.50 gms. Banded 2031-08908 PK/KW BL/BK. Parent of J15155 <sup>+ J15159. Mate of</sup> but J15164 reared J15157 + 140. Tissue + stomach saved (in body 4 hrs after death) Gonads left - 1.93 x 1.56 mm + rt 1.64 x 1.43 mm. Bill length 8.82 mm, Bill depth 5.95 mm, Bill width 4.77 mm, Wing length \* 58.75 mm, Tail length 59.73 mm, Tarsus 19.68 mm, Middle Toe 17.98 mm, Hallux with claw 13.53 mm, Cloaca 2.87 x 5.61 mm. Molt - wing + coverts, outer tail feathers, back + belly. Some fat. Skin + Partial skel.







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Russell Free Reservoir, 2 mi NW Lafayette, Contra Costa Co., Calif. 1300 ft

- J15161 Melospiza melodia gouldii ♀? imm. Huge sk. wind. 17 August 1989. wt. 17.00 gms. Unbanded. Testis + stomach saved. Gonads - left ovary  $3.57 \times 1.57$  mm. Bill length 7.97 mm, Bill depth 5.72 mm, Bill width 4.74 mm, Wing length 56.11 mm, Tail length 59.64 mm, Tarsus 17.73 mm, Middle toe 18.40 mm, Hallux with claw 14.22 mm, Cloaca  $3.72 \times 3.72$  mm. Molt Primaries 7-9 in pin, Belly + Back. Some Fat. Skel. Only.
- J15162 Melospiza melodia gouldii ♀ adsk. 17 August 1989. wt. 18.00 gms. Bill shot. Bill depth 8.92 mm, Wing length 57.53 mm, Tail length 60.06 mm, Tarsus 18.13 mm, Middle toe 17.68 mm, Hallux with claw 14.70 mm, Cloaca  $3.08 \times 3.48$  mm. Molt - Primaries 7-9 + secondaries, outer tail, belly + back. Much Fat. Skel. Only. Left ovary  $4.64 \times 2.39$  mm.
- J15163 Melospiza melodia gouldii ♀ adsk. 18 August 1989. wt 19.50 gms. Banded 2031-08933 <sup>BL</sup>/FW <sup>OR</sup>/YL. Parent of J15156. Mate of J15166. Both Tarsi broken. Testis + stomach saved. Left ovary  $3.83 \times 1.81$  mm. Bill length 9.13 mm, Bill depth 5.78 mm, Bill width 4.88 mm, Wing length 55.57, Tail length 60.46 mm, Tarsus 17.56 (rt leg), middle toe 19.41 (rt leg), hallux with claw 13.56 mm (rt leg), Cloaca  $4.72 \times 3.70$  mm. Molt - Primaries 7-9 emerging from pin, tail coverts, back, under and upper wing coverts + head. Much fat. Skin + Partial skel.
- J15164 Melospiza melodia gouldii ♀ adsk. 21 August 1989. wt 20.00 gms. Banded 2031-08936 <sup>PK</sup>/FW <sup>BK</sup>/RD. Parent of J15139 + J15155, Reared J15197 + 140. Mate of J15160. Testis + stomach saved. Left leg shot. Bill length 9.42 mm, Bill depth 5.60 mm, Bill width 4.96 mm, Wing length 54.90 mm, Tail length\* 59.53 mm, Tarsus 18.00 mm, middle toe 19.76 mm, hallux with claw 14.15, cloaca  $3.50 \times 4.23$  mm, left ovary  $4.97 \times 2.7$  mm, Molting:







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~~Russell Tree Res. 2mi NW Lafayette, Contra Costa Co. California 1300ft~~

- JIS 164 (cont) Primaries #1 + 6-8, 1st secondary, all tail + coverts, belly, back + head. Some fat. SKin + Partial spel.
- JIS 165 Melospiza melodia gouldii BadsK. 21 August 1989. wt 20.00gms  
Banded 2031-08902 <sup>GR</sup>/FW <sup>OR</sup>/BK, Parent of JIS 151. Testes:  
L - 2.09 x 1.15mm + R - 1.97 x 1.34mm. Intestine + stomach saved  
Bill length 9.21mm, Bill depth 5.88mm, Bill width 5.17mm, wing length\*  
60.45mm, Tail length\* 63.98mm, Tarsus 17.66mm, Middle Toe 19.41mm,  
hallux with claw 15.02mm, cloaca 2.78 x 2.71mm, Molting: Primaries  
6-9 + secondaries, outer left tail, belly, back + head. Much fat.  
SKin + Partial spel.

- JIS 166 Melospiza melodia gouldii BadsK. 23 August 1989. wt 22.00gms.  
Banded 2031-08904 <sup>B</sup>/FW <sup>RD</sup>/BR, Parent of JIS 156, mate of JIS 163.  
Testes: L - 1.55 x 1.63mm + R - 1.84 x 1.52mm. Rt leg shot. Intestine +  
stomach saved. Bill length 8.66mm, Bill depth 5.64mm, Bill width 4.88mm,  
Wing length\* 59.80mm, Tail length 64.74mm, Tarsus 19.62mm, Middle toe  
18.01mm, Hallux with claw 13.69 (left), cloaca 3.00 x 3.70mm.  
Molting: back, belly, Primaries 9-7 + Secondaries 1-3. Some fat  
skin + partial spel.

~~Seeghen Creek Field Station, 3mi NW Hobart Mills, Nevada Co. Calif. 6300ft~~

- JIS 167 Melospiza melodia fisherella BadsK. 28 August 1989. wt 25.00gms.  
Banded 1431-14511 <sup>FW</sup>/BK <sup>TL</sup>/BR. Intestine + stomach saved. Testes:  
L - 1.50 x 0.96mm + R - 2.09 x 1.43mm. Left leg shot. Bill length 9.27mm  
Bill depth 6.19mm, Bill width 5.35mm, Wing length\* 63.26mm, Tail length\* 70.84mm,  
Tarsus 19.54mm, Middle Toe 18.24mm, hallux with claw 14.72mm, cloaca  
3.28 x 2.78mm, Molting: Primaries 6-8, 1-2 secondaries, only 8 tail  
feathers, head, belly + back. Some fat. SKin + Partial spel.







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Sagehen Creek Field Station, 3 mi. NW Hobart Mills, Nevada Co., Calif. 6388 ft

J15168 Melospiza melodia fisherella ♂ ad. sk. 28 August 1989. wt 23.00 gms

Banded 1431-14512 <sup>FW</sup>/<sub>BR</sub> <sup>RD</sup>/<sub>OR</sub>. Mate of J15171, Parent of J15149 + 148. Tarsus + stomach saved. Testes: L - 2.88 x 2.08 mm + R - 1.26 x 1.09 mm. Bill length 8.64 mm, Bill depth 5.94 mm, Bill width 5.01 mm, wing length\* 63.75 mm, Tail length\* 69.51 mm, Tarsus 17.41 mm, Middle toe 19.28 mm, hallux with claw 13.31 mm, cloaca 3.08 x 3.69 mm. Molting: Primaries 5-7, secondaries 1-2, tail, back, belly + head. Much fat. Skin + Partial skel.

J15169 Melospiza melodia fisherella ♀ ad. sk. 29 August 1989. wt 21.50 gms

Banded 2031-08952 <sup>OR</sup>/<sub>YL</sub> <sup>RD</sup>/<sub>FW</sub>, Mate of J15175, Parent J15152 + 153. Tarsus + stomach saved. ~~Testes~~ left ovary 3.58 x 2.32 mm, Bill length 9.35 mm, Bill depth 6.33 mm, Bill width 5.18 mm, wing length\* 63.38 mm, Tail length\* 68.68 mm, Tarsus 17.59 mm, Middle toe 21.50 mm, hallux with claw 15.25 mm, cloaca 3.78 x 3.34 mm, Molting: Primaries 7-9, secondaries 1-2, tail, back, belly + head. Some fat. Skin + Partial skel.

J15170 Melospiza melodia fisherella ♂ ad. sk. 29 August 1989. wt 21.00 gms

Banded 2031-08922 <sup>BR</sup>/<sub>FW</sub> <sup>YL</sup>. Tarsus + stomach saved. Testes left - 1.53 x 1.39 mm + R - 1.58 x 1.35 mm, Bill length 8.84 mm, Bill depth 6.27 mm, Bill width 5.32 mm, wing length\* 65.27 mm, Tail length 70.49 mm, Tarsus 18.12 mm, Middle toe 20.84 mm, hallux with claw 14.57 mm, cloaca 2.89 x 3.41 mm, Molting: Primaries 7-9, secondaries 5-7, belly, back + head. No tail molt. Slight Fat. Skin + Partial skel.

J15171 Melospiza melodia fisherella ♀ ad. sk. 29 August 1989. wt 20.00 gms.

Banded 1431-14516 <sup>FW</sup>/<sub>BR</sub> <sup>BL</sup>/<sub>YL</sub>, Mate of J15168, Parent of J15148 + 149. Tarsus + stomach saved, left ovary 4.16 x 2.41 mm, Bill length 8.54 mm, Bill depth 6.42 mm, Bill width 5.26 mm, wing length\* 62.49 mm, Tail length\* 58.67 mm, Tarsus 18.55 mm, Middle toe 19.65 mm, hallux with claw 14.32 mm, cloaca 3.69 x 3.23 mm, Molting: Primaries 4-5, secondary #1, tail, belly, back, + head. Slight Fat. Skin + Partial skel.







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~~Sagehen Creek Field Station, 3 mi. NW Hobart Mills, Nevada Co., California 6300 ft.~~

JIS 172 Melospiza melodia fisherella. ♀ ad. sk. 9 September 1989. wt 22.50 gms.

Banded 2031-08949 <sup>BK</sup>/<sub>FW</sub> <sup>GR</sup>/<sub>OR</sub>, reared JIS 148 + 149.

Rt tibia broken. Left ovary 3.79 x 3.86 mm, largest foll. 0.72 mm.

Tissue + stomach saved. Bill length 8.77 mm, Bill depth 5.97 mm, Bill width 5.27 mm, Wing length\* 64.31 mm, Tail length 69.39 mm, Tarsus 18.55 mm, Middle toe 19.36 mm, hallux with claw 13.92 mm, cloaca 2.55 x 4.09 mm, Molting: Primaries 8-9, secondaries 1-6, back + belly. Very Much Fat. Skin + Partial skel.

JIS 173 Melospiza melodia fisherella ♂ ad. sk. 9 September 1989. wt 23.50 gms

Banded 1431-14510 <sup>FW</sup>/<sub>OR</sub> <sup>WH</sup>/<sub>PK</sub>. Tissue + stomach saved. Testes:

L - 1.74 x 1.12 mm + R - 1.31 x 1.29 mm. Head shot. Bill length

9.01 mm, Bill depth 6.05 mm, Bill width 4.82 mm, Wing length\* 67.36 mm, Tail length 75.03 mm, Tarsus 19.70 mm, Middle toe 18.43 mm, hallux with claw 15.03 mm, cloaca 3.85 x 3.52 mm, Molting Primaries 6-9, secondaries 1-6, head, belly + back. Some fat. Skin + Partial skel.

JIS 174 Melospiza melodia fisherella ♂ ad. sk. 9 September 1989. wt 24.00 gms.

Tissue + stomach in body > 4 hours before preservation. Gonads not found. ~~Bill~~ Banded 2031-08926 <sup>GR</sup>/<sub>FW</sub> <sup>OR</sup>/<sub>YR</sub>. Bill length 8.99 mm, Bill depth 5.97 mm, Bill width 5.07 mm, Wing length\* 66.31 mm, Tail length 70.64 mm, Tarsus 21.20 mm, Middle toe 19.86 mm, hallux with claw 15.66 mm, cloaca 3.29 x 4.01 mm. Molting: Primaries 7-9, secondaries 1-7, Some fat. Internal parasite saved with stomach. Skin + Partial skel.

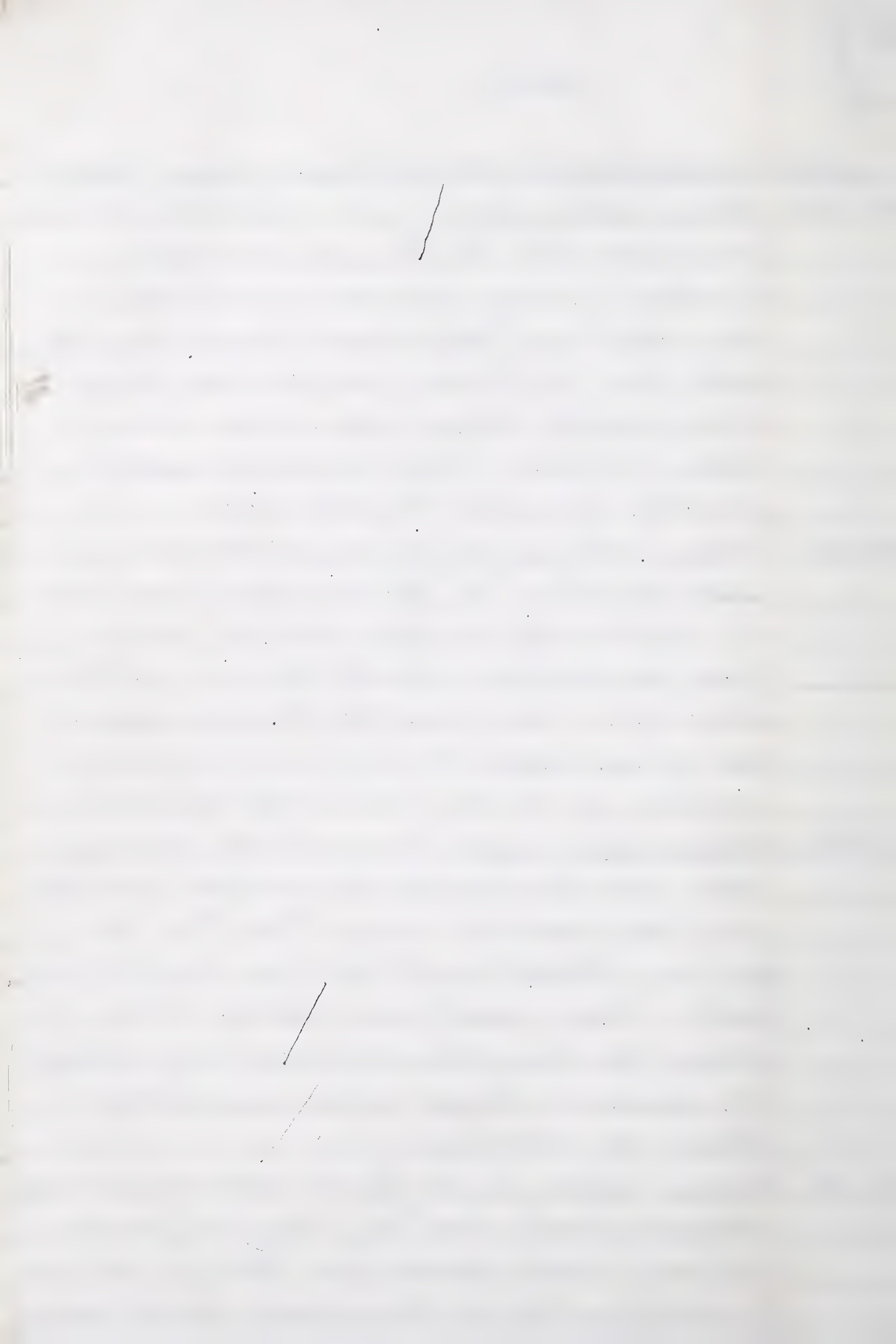
JIS 175 Melospiza melodia fisherella ♂ ad. sk. 10 September 1989. wt 23.50 gms.

Banded 2031-08932 (<sup>BK</sup>/<sub>WH</sub> <sup>RD</sup>/<sub>FW</sub>) Mate of JIS 169, parent of

JIS 152 + 153. Tissue + stomach saved. Testes: L - 1.38 x 1.04 mm +

R - 1.02 x 1.66 mm. Bill length 9.85 mm, Bill depth 6.28 mm, Bill width 5.27 mm.







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# Catalog

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Sagehen Creek Field Station, 3mi NW Hobart Mills, Nevada Co., Calif. 6300ft.

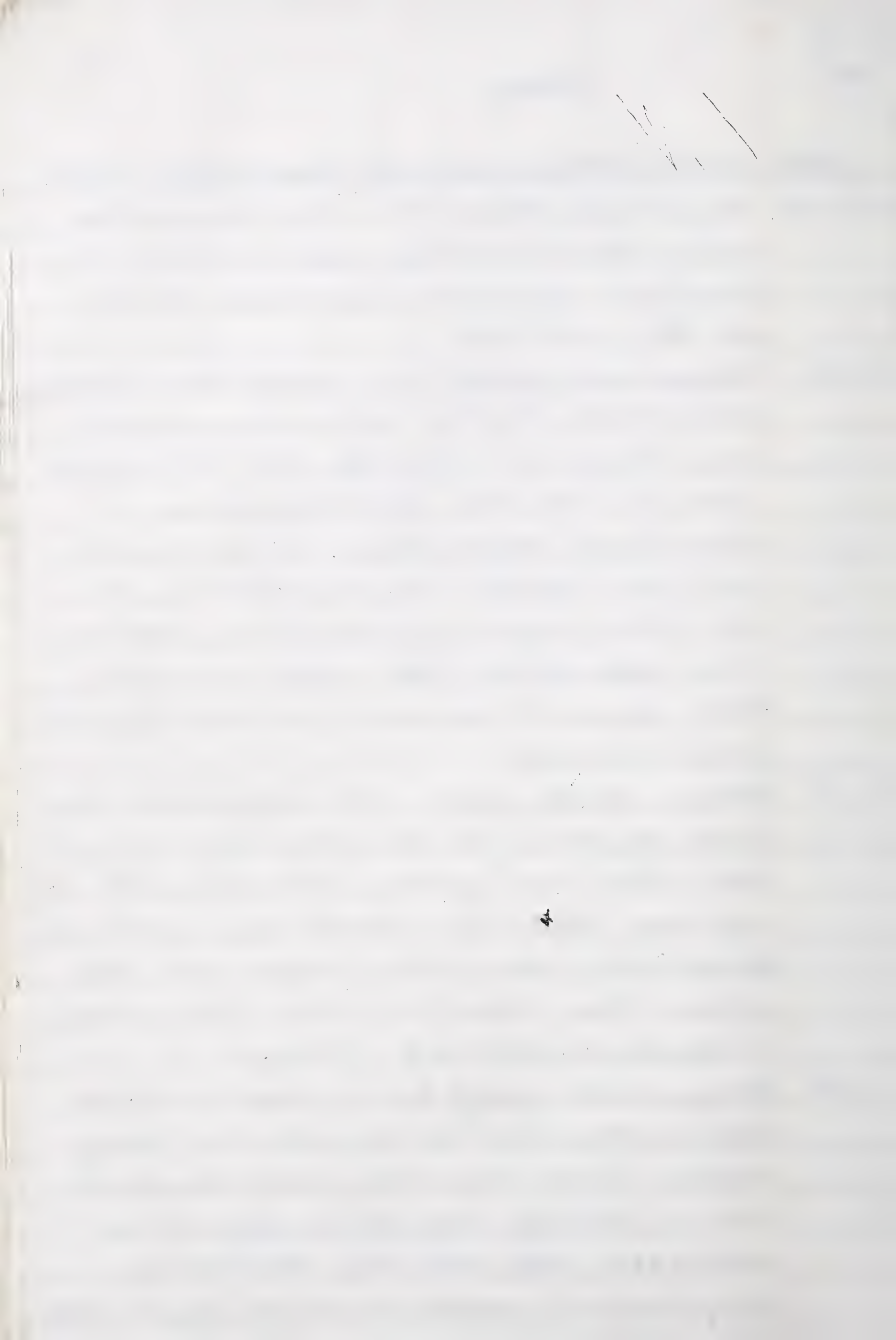
JIS 175 (cont) wing length \*67.30mm, tail length \*74.56, tarsus 19.97mm, middle toe 19.41mm, hallux with claw 15.39mm, cloaca 4.24 x 3.41mm. Molting: primaries 8-6, secondaries 1-2, head, back, belly, tail. Slight fat. Skin + partial skull.

JIS 176 Melospiza melodia fisherella ♂ ad. sk. 10 September 1989. wt 24.50gms. Banded 1431-14513 ( $Y^c/EO^{wh}/FW$ ) Mate of JIS 177, reared JIS 139. Tarsus + stomach saved. Only left tibia saved. Testes: L-1.53 x 1.06mm, R-1.33 x 1.67mm. Right hallux claw missing, + internal parasite saved with stomach. Bill length 9.17mm, Bill depth 6.14mm, Bill width 5.40mm, Wing length \*70.48mm, Tail length \*72.92mm (just al. H. in sheath), Tarsus 17.73mm, middle toe 19.94mm, hallux with claw 15.50mm, cloaca 3.27 x 3.02mm. Molting: primaries 7-9, secondaries 2-6, tail, head, belly + back. Some fat. Skin + partial

JIS 177 Melospiza melodia fisherella. ♂ ad. sk. 11 September 1989. wt 19.00gms. Banded 2031-08954 ( $BL/BK^{wh}/FW$ ) Mate of JIS 176, reared JIS 139. Tarsus + stomach saved. Left ovary 3.22 x 3.09mm. Bill length 9.07mm, Bill depth 5.86mm, Bill width 5.12mm, wing length \*62.94mm, Tail length 66.60mm, Tarsus 18.04mm, middle toe 19.07mm, hallux with claw 14.01mm, cloaca 3.26 x 2.68mm. Molting: Primaries #9, secondaries 4-6, back + belly. Much fat.

JIS 178 Melospiza melodia fisherella ♀ ad. sk. 11 September 1989, wt 20.50gms. Banded 2031-08963 ( $Y^c/wh^{OK}/FW$ ). Tarsus + stomach saved. Left ovary 3.18 x 4.09mm. Tibia broken. Bill length 8.95mm, Bill depth 5.66mm, Bill width 5.30mm, wing length \*61.50mm, Tail length 66.67mm, Tarsus 20.17mm, middle toe 19.46mm, hallux with claw 14.59mm, cloaca 3.04 x 3.74mm. Molting: Primaries 8-9, secondaries 3-6, back + belly. Some fat. Skin + partial skull.







## Catalog

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Salton Sea National Wildlife Refuge, 8mi WSW Calipatria, 500 meters N of corner of Bruchard + Foulds Road, Imperial Co, Calif., -68 feet elev.

- JIS 179 Melospiza melodia ♀ gonads shot ad.sk. 4 November 1989. wt 17.5gms  
Tissue + stomach saved. No broodpatch. Some fat. Skeleton only.
- JIS 180 Melospiza melodia saltonis ♂ large sk. wind. 4 November 1989.  
wt. 19.0gms. Tissue + stomach saved. Some Fat. Belly Molt.  
Skin + Partial skeleton.
- JIS 181 Melospiza melodia saltonis. ♀ ad.sk. 4 November 1989. wt. 17.5gms.  
Left ovary 3.41 x 2.81mm. Tissue + stomach saved. Some fat. No  
broodpatch. Skin + Partial skeleton.
- JIS 182 Melospiza melodia saltonis ♂ ad.sk. 4 November 1989. wt 18.0gms.  
Tissue + stomach saved. Some Fat. Testes: L-1.57 x 1.23mm, R-1.31 x  
1.20mm. Skin + Partial skeleton.
- JIS 183 Melospiza melodia saltonis. ♀ lg. sk. wind. 4 November 1989. wt 18.0gms.  
Left ovary 1.37 x 1.13mm. No broodpatch. Tissue + stomach saved.  
Collected by Carla Cecero. Tissue + stomach saved. Skin and  
partial skeleton.
- JIS 184 Melospiza melodia saltonis. ♀? AK. wind. 4 November 1989. wt. 15.0gms.  
Collected by Carla Cecero. Tissue + stomach saved. Some fat.  
Skin + Partial skeleton. Back Molt. No broodpatch.
- JIS 185 Melospiza melodia saltonis. ♀ ad.sk. 4 November 1989. wt. 17.0gms  
Collected by Carla Cecero. Left ovary 3.77 x 2.44mm. Tissue + stomach  
saved. Much Fat. No broodpatch. Skin + Partial skeleton.







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# Catalog

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Sagehen Creek Field Station, 3 mi NW Hobart Mills, Nevada Co., Calif., 6300 ft.

J15186 *Melospiza melodia fisherella* ? <sup>24 days old</sup> imm. 23 June 1990, wt 18.0 g.

Banded 77-96038 (BL). Tarsus + stomach saved. Right tibia broken

much fat Bill length 7.46, Bill depth 5.52, Bill width 4.38,  
wing length 60.88, Tail length 51.6, Tarsus 16.88, Middle toe 18.60,  
hallux with claw 13.99, cloaca 3.61 x 4.44, Molting Tail,  
Roundness 10, 3rd 10 47.48, Roundness 10.97, skin + partial skel.

J15187 *Melospiza melodia fisherella* ♂ <sup>24 days old</sup> imm. 23 June 1990, wt 17.0 gms.

Banded 77-96040 (BL). Tarsus + stomach saved. Both Tibia saved,

much fat Bill length 7.50, Bill depth 5.6, Bill width 4.98,  
wing length 57.25, Tail length 51.91, Tarsus 18.11, Middle toe 17.83,  
Hallux with claw 13.30, cloaca shot, ~~Roundness~~ Molting Perianis  
shot, Roundness 11.06, 3rd 10 47.55, Tail skin + Partial skel.

~~J15188 *Melospiza melodia gouldii* SK. wind.~~

Big Creek Reserve, 5 mi N Lucia, Monterey Co., California, 400 ft.

J15188 *Melospiza melodia gouldii* ♂ hatched SK. wind. 7 July 1990. wt 17.5 gms.

Tarsus saved + stomach. Banded 77-96042. This fledgling is

part of Transper #3, eggs laid at Big Creek but transferred to  
Sagehen Creek Field Station 27 May 1990, hatch day ~ 4 June 1990.

Bill length 7.55, Bill depth 5.30, Bill width 4.53, wing  
length 59.48, Tail length 55.58, Tarsus 16.98, Middle toe 18.53,  
Hallux 13.55, Molt: <sup>43.96</sup> 43.96 3rd 10 <sup>45.74</sup> 45.74, Tail <sup>52.95</sup> 52.95, cloaca <sup>3.05 x</sup> 2.59

SK. + partial skel. Roundness 9.79, Toes: L 0.82 x 0.85, R 1.00 x 0.71

J15189 *Melospiza melodia gouldii* ♂ hatched SK. wind. 7 July 1990. wt 17.0 gms

SK. in + Partial skel.

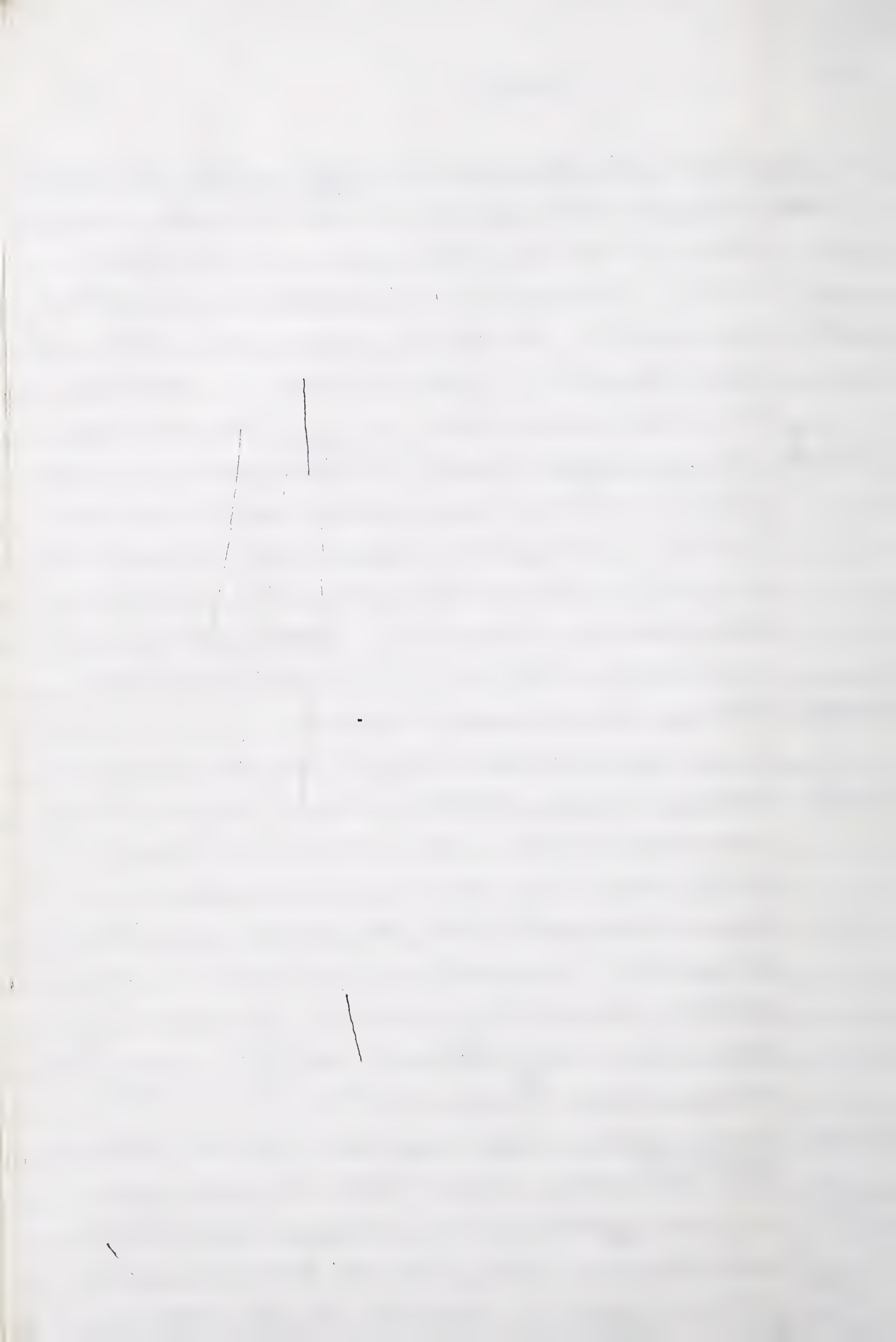
Left tibia  
not saved

Tarsus saved + stomach, Banded 77-96043. This fledgling is part of  
transplant #3, eggs laid at Big Creek but transferred to Sagehen Creek Field  
Station 27 May 1990, hatch day ~ 4 June 1990. Bill length 7.48, depth 5.10,

Flight wing  
shot  
hatched

width 4.29, wing length 58.33, Tail length 57.65, Tarsus 17.55, Middle toe 17.66,  
Hallux 12.84, Molt 10 48.41/48.61, 47.65/52.97 tail, cloaca 4.33 x 2.47 Roundness 11.83







Big Creek Reserve, San Lucia, Monterey Co., California 400ft elev.

JIS 190 *Melospiza melodia gouldii* ♀ <sup>2.87 x 0.86 wing</sup> sk. wind. 10 July 1990 wt. 17.5 gms  
 Intestine & stomach saved. Cloaca 2.16 x 1.48, fat some, Bill length  
 8.12 mm, Bill depth 5.19, Bill width 4.30, Wing length 55.18,  
 Tail length 56.41, Tarsus 16.50, Middle toe 18.30, Hallux with claw 18.29  
 claw 13.19, Molt: <sup>47.21</sup> 47.21 3rd 1°, Round 9.92 mm, Tail ~~55.55~~ 55.55/55.55, belly pins  
 skin + partial skull saved.

JIS 191 *Melospiza melodia gouldii* ♂ <sup>1.97 x 1.47 L + R 1.92 x 1.66</sup> ad. sk. 10 July 1990. wt 21.0 gms  
 Intestine & stomach saved. Cloaca 3.2 x 4.29, fat set,  
 Bill length 8.24 mm, Bill depth 5.69, Bill width 4.69, Wing length  
 59.77, Tail length 57.19, Tarsus 17.45, Middle toe  
 19.05, Hallux with claw 13.85, Molt: Primaries 2+3 and Tail all but right 3 outer  
 Skeleton Only. Roundness: 11.53

JIS 192 *Melospiza melodia gouldii*, ♂? sk. wind. 11 July 1990 <sup>22.0</sup> 22.1 gms  
 Intestine & stomach saved. Cloaca, fat ~~some~~ some,  
 Bill length 7.80 mm, Bill depth 5.59, Bill width 4.49, Wing length  
 61.42, Tail length 63.44, Tarsus 18.49, Middle toe 17.74,  
 Hallux with claw 15.26, Molt <sup>48.54</sup> 3rd 1° 48.54, Tail <sup>61.20</sup> 61.20  
 Roundness: 9.90, Accompanied by adults & others calling  
 probably ~4 weeks old. Skin + partial skull. <sup>Back feathers some in</sup> Pins

JIS 193 *Melospiza melodia gouldii*, ♂ huge sk. wind. 11 July 1990. ? <sup>22.0</sup> 22.1 gms  
 Intestine & stomach saved. Cloaca, fat some, Bill  
 length <sup>7.79</sup> 7.79, Bill depth <sup>5.31</sup> 5.31, Bill width <sup>4.25</sup> 4.25, Wing length  
 58.41, Tail length 60.95, Tarsus 19.92, Middle toe 18.04,  
 Hallux with claw 13.71, Molt: <sup>45.84</sup> 45.84 1°, Tail <sup>57.33</sup> 57.33  
 Roundness 7.50, Accompanied by adult, ~4 weeks old.  
 Skin + partial skull. Tick engorged on left side of throat







Smith, J

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Big Creek Reserve, 5 mi N Lucia, Monterey Co. California, 400 ft elev.

J15194 Melospiza melodia gouldii. ♂ sk. wind. 11 July 1990. <sup>24.5</sup> 24.5 gms  
Issue + stomach saved. Cloaca , fat some. Bill  
length 8.05, Bill depth 5.82, Bill width 4.65, Wing length  
58.61, Tail length 59.81, Tarsus 20.37, Middle toe 16.55,  
Hallux with claw 14.57, Molt:  $\frac{46.83}{46.83}$  1°,  $\frac{60.15}{60.15}$  tail  
Roundness 8.78, Accompanied by an adult, ~4 weeks old.  
Ski + partial skel.

J15195 Melospiza melodia gouldii. ♂ sk. wind. 11 July 1990. 21.0 gms  
Issue + stomach saved. Cloaca , fat much. Bill  
length 7.67, Bill depth 5.76, Bill width 4.25, Wing length  
60.46, Tail length 62.75, Tarsus 19.60, Middle toe 17.88,  
Hallux with claw 14.34, Molt:  $\frac{47.16}{47.16}$  ,  $\frac{62.75}{62.75}$  tail  
Roundness 7.22, Accompanied by an adult, ~4 weeks  
old, ski + partial skel. Right tib broken

J15196 Melospiza melodia gouldii. O? sk. wind. 14 July 1990. 16.5 gms  
Issue and stomach saved, Cloaca 4.26 x 3.21, fat much. Bill  
length ~~depth~~ 7.12, Bill depth 5.11, Bill width 4.21, Wing  
length 56.71, Tail length 45.53, Tarsus 18.45, Middle  
toe 19.60, Hallux with claw 13.50, Molt: ~~44.31~~  $\frac{39.49}{44.31}$ ,  
Roundness: 9.04  
Still being fed by adult. 77-96045 banded R/R 26 days old  
Part of transfr #4 Right tib A broken, ski + partial skel.

J15197 Melospiza melodia gouldii. ♀? <sup>0.88 x 1.42 left wing</sup> sk. wind 17 July 1990. 17.0 gms  
Issue + stomach saved, Cloaca , fat much, Bill length 7.33 mm,  
Bill depth 4.83, Bill width 4.97, Wing length 57.62, Tarsus 18.77,  
Middle toe 18.53, Hallux with claw 14.07, Molt:  $\frac{40.03}{45.18}$  3rd,  $\frac{36.65}{42.85}$  tail  
Tail 49.06, Roundness 9.84, Laid at Big Creek, hatched, reared + skel at  
Sagehen. Sib of J15196. Banded 77-96048. Ski + Partial skel. 26 days old







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Big Creek Reserve, San Nicolas, Monterey Co., California 400 ft

JIS 198

Melospiza melodia gouldii. o<sup>2</sup>. sk. wind. 17 July 1990. 18.0 gms

Issue + stomach saved. Cloaca 2.37 x 3.38, fat much, Bill  
 length 6.82, Bill depth 5.46, Bill width 5.00, Wing length 55.78<sup>left wing</sup>,  
 Tail length 51.0, Tarsus 19.32, Middle toe 16.98, Hallux with claw 14.58,  
 Molt:  $\frac{43.02}{46.83} 1^\circ$ ,  $\frac{35.87}{45.23}$  Roundness 10.72, laid at Big Creek hatch

reared ad shot at Sager, partly transp #6 (see notes) sib of JIS 199.

Banded 77-96046. Right wing + leg shot. Sk + Partial Skel. 25 days old

JIS 199

Melospiza melodia gouldii. o<sup>1</sup>. sk. wind. 17 July 1990. 19.5 gms

Issue + stomach saved. Cloaca 2.54 x 2.98, fat some, Bill length 7.11 mm,

Bill depth 4.70, Bill width 4.48, Wing length 57.33, Tail length 50.15,

Tarsus 20.35, Middle toe 17.63, Hallux with claw 13.79, Molt  $\frac{44.64}{44.64} 1^\circ$

$\frac{35.57}{42.79}$  tail, Roundness 9.84. Laid at Big Creek, hatched,

reared + Murt at Sager. Sib of JIS 198. Transp #6<sup>(p. 190)</sup>. Banded 77-96047

Right leg shot + left shot - no tibia saved. Shot in back gonads not found  
 no kidney found 25 days old

JIS 200

Melospiza melodia gouldii ♂ sk. wind. 24 July 1990. wt. 19.0 gms.

Issue + stomach saved. Cloaca 2.62 x 2.62 mm. Much fat.

Testes: L-1.48 x 0.90 mm, R-0.89 x 0.97 mm. Bill length 7.77 mm, Bill

depth 5.47, Bill width 4.87, Wing length 61.74, Tail length 64.06,

Tarsus 20.63, Middle toe 19.17, Hallux 13.67, Roundness 11.25,

Molt 49.62/49.62 3rd 1<sup>o</sup>, 63.57/63.57 tail. Fledgling.

Sagehen Creek Field Station, 3 mi NW Hobart Mills, Nevada Co., California 6300 ft elev.

JIS 201

Melospiza melodia fitchellae ♂ sk. wind. 26 July 1990. wt 20.0 gms

Banded 77-96039. Testes: L-0.94 x 0.74, R-1.05 x 0.95 mm.

Bill length 8.98, Bill depth 6.07, Bill width 5.02, Wing length 64.86, Tail length

66.16, Tarsus 19.21, Middle toe 17.46, Hallux with claw 14.41, Roundness 12.15,

Molt: 52.14/52.14 3rd 1<sup>o</sup>, 62.72/62.72 tail. 57 days old.







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~~Big Creek Reserve, 5 mi N Lucia, Monterey Co., California 400 ft elev~~  
JIS 202 Melospiza melodia gouldii. ♂ sk. wind. 26 July 1990. wt. 19.0 gms.  
Banded 77-96057. Testes: L-1.62 x 0.95 mm, R-1.77 x 1.4 mm.  
Some Fat. Both legs shot. Laid at Big Creek; hatched reared +  
collected at Sagehen Creek Field Station, 3 mi NW Hobart Mills,  
Nevada Co., California 6300 ft elev. Transfer #7. 29 days old.  
Bill length - shot, Bill depth 5.2 mm, Bill width 4.43, Wing length 58.49,  
Tail length 56.87, Tarsus 20.51, Middle toe 15.24, Hallux with  
claw 12.93, Roundness 8.88, Molt: 47.88/47.88 3rd 10, 40.30/50.26  
tail. Skin + Partial skeleton. Tissue + stomach saved.

JIS 203 Melospiza melodia gouldii ♀ sk. wind. 27 July 1990. wt. 17.5 gms.  
Banded 77-96059. Much Fat. Tissue + stomach saved.  
Laid at Big Creek; hatched, reared and collected at Sagehen Creek  
Field Station, 3 mi NW Hobart Mills, Nevada Co., California, 6300 ft elev.  
Transfer #9. 32 days old. ~~Bill~~ Bill length 7.25 mm, Bill depth 5.18,  
Bill width 4.77, Wing length 56.85, Tail length 57.19, Tarsus 18.00,  
Middle toe, 17.47, Hallux with claw 13.48, Roundness 10.92,  
Molt: 44.63/44.63 3rd 10, 43.85/51.33 tail.

~~JIS 204 Melospiza melodia fesheriella~~

~~Sagehen Creek Field Station, 3 mi NW Hobart Mills, Nevada Co., California 6300 ft~~  
JIS 204 Melospiza melodia fesheriella. ♂ sk. wind. 27 July 1990. wt. 19.5 gms.  
Tissue + stomach saved. Some fat. Testes: L-1.52 x 1.18, R-1.18 x 1.01 mm.  
Being fed by parents. Skeleton Only. Bill length 5.96, Bill depth 4.57,  
Bill width 4.57, Wing length 49.43, Tail length 22.71, Tarsus 19.27,  
Middle toe 19.20, Hallux with claw 12.53, Roundness 9.61. Molt  
27.62/35.13 3rd 10, 8.21/20.87 tail.







with, J

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~~Big Creek Reserve, 5 mi N Lucia, Monterey Co., California, 400 ft. elev.~~

J15205 Melospiza melodia gouldii ♀ sk. wind. 28 July 1990. wt. 18.5 gms.

left ovary  $1.32 \times 1.32$  mm. Banded 77-96063. Much Fat. Laid at Big Creek; hatched, reared + collected at Sager Creek Field Station, 3 mi NW Hobart Mills, Nevada Co., Calif., 6300 ft. elev. Skin + Partial skeleton. Tissue + stomach saved. Part of Transf. #10. 25 days old. Bill length 7.10 mm, Bill depth 4.74, Bill width 4.22, Wing length 55.42, Tail length 47.36, Tarsus 19.69, Middle Toe 17.46, Hallux with claw 14.35, Roundness 9.01, Molt  $40.70/40.70$  3rd 1°,  $35.71/41.73$  tail.

~~Sager Creek Field Station, 3 mi NW Hobart Mills, Nevada Co., California, 6300 ft. elev.~~

J15206 Melospiza lincolni ♂ sk. wind. 28 July 1990. wt. 16.0 gms

Skeleton only. Testes: L- $1.42 \times 0.70$  mm, R- $1.06 \times 0.66$  mm.

~~Big Creek Reserve, 5 mi N Lucia, Monterey Co., California, 400 ft. elev.~~

J15207 Melospiza melodia gouldii ♂ sk. wind. 29 July 1990. wt. 21.5 gms

Banded 77-96065. Testes L- $1.26 \times 0.80$  mm, R- $1.13 \times 0.88$  mm.

Much fat. Laid at Big Creek; hatched, reared + collected at Sager Creek Field Station, 3 mi NW Hobart Mills, Nevada Co., California, 6300 ft. elev. Part of Transf. #11. 27 days old. Tissue + stomach saved. Skin + Partial skeleton. Bill length 7.00 mm, Bill depth 5.07, Bill width 4.24, Wing length 60.31, Tail length 57.72, Tarsus 20.35, Middle Toe 18.68, Hallux with claw 13.89, Roundness 12.38, Molt:  $47.59/47.59$  3rd 1°,  $35.75/51.75$  tail.

~~J15208 Melospiza melodia ♂~~

~~Sager Creek Field Station, 3 mi NW Hobart Mills, Nevada Co., Calif., 6300 ft. elev.~~

J15208 Melospiza melodia fisherella ♀ ad sk 14 August 1990. wt. 19.00 gms.

Banded 77-96105. Left Ovary  $4.75 \times 2.78$ ; 0.56 mm largest follicle

Some fat. Parent of 77-96106 + 77-96107. Reared OR OR + 77-96108.

→ J15211







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Sagehen Creek Field Station, 3mi NW Hobart Mills, Nevada Co., California 6300 ft elev

JIS 208  
(cont)

Skis + Partial skeleton. Tissue + stomach saved. Bill length 8.97  
Bill depth 6.23, Bill width 4.85, Wing length 60.82, Tail length 63.79,  
Tarsus 19.38, Middle Toe 19.87, Hallux with claw 13.92  
Roundness 9.21, Molt: tail (3rd from root) tibia shot. <sup>Male ♀</sup> JIS 213

JIS 209

Melospiza melodia fisherella ♂ imm sk wind. 14 August 1990. wt. 22.0 gms  
Banded 77-96108, offspring of 77-96033 <sup>OR PL</sup> ~~FW~~ <sup>PL</sup> ~~FW~~ + unmarked ♀; reared  
by JIS 208 + unmarked ♂ <sup>JIS 213</sup>. Skis + partial skel. Tissue + stomach saved.  
Bill length 6.58, Bill depth 5.29, Bill width 4.80, Wing length 64.63,  
Tail length 46.16, Tarsus <sup>20.46</sup> ~~24.57~~, Middle Toe <sup>19.52</sup> ~~17.35~~, Hallux with  
claw 14.46, Roundness 10.89, Molt: <sup>43.08</sup> 50.74 <sup>20.09</sup> 3rd 10, <sup>41.16</sup> tail  
Testes L: 1.87 x 1.16 mm R: 1.59 x 1.07 mm. Much Fat  
21 days old. 5.6 g JIS 212.

JIS 210

Melospiza melodia fisherella ? imm sk wind. 15 August 1990. wt. 19.50 gms  
Skeleton Only. Tissue + stomach saved. Bill length 7.70, Bill  
depth 6.04, Bill width 5.23, Wing length 63.67, Tail length 67.45,  
Tarsus 19.03, Middle Toe 18.36, Hallux with claw 14.04  
Roundness 11.26, Molt: <sup>51.52</sup> 51.52 <sup>65.16</sup> 10, <sup>65.16</sup> tail.  
Gonads: shot, left wing shot

JIS 211

Melospiza melodia fisherella ♂ imm sk wind. 15 August 1990. wt. 24.0 gms  
Banded 77-96107, offspring of JIS 208, reared by 77-96033 <sup>OR PL</sup> ~~FW~~ <sup>PL</sup> ~~FW~~ +  
unmarked ♀. Skis + Partial skeleton. Tissue + stomach. Bill length 7.35  
Bill depth 5.63, Bill width 4.68, Wing length 67.05, Tail  
length <sup>57.52</sup> ~~57.52~~, Tarsus 19.73, Middle Toe 19.01, Hallux w/ claw 14.94  
Roundness 12.02, Molt: <sup>47.09</sup> 51.69 <sup>42.34</sup> 10, <sup>51.02</sup> tail  
24 days old, Gonads: Testes L: 1.55 x 1.11 mm; R 1.32 x 1.23 mm  
saw fat







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Sagehen Creek Field Station, 3 mi NW Hobart Mills, Nevada Co. Calif., 6300 ft. elev.

JIS 212 *Melospiza melodia fisherella* ♀ imm sk. wind. 16 August 1990. wt. 19.0 gms.  
Banded OR OR. Sib of JIS 209. Offspring of 77-96033<sup>♂</sup> FW<sup>12</sup>/RW; reared  
by JIS 208 + JIS 213. Skin + Partial skeleton. Intestine + Stomach  
saved. 22 days old. Bill length 6.72, Bill depth 5.46, Bill  
width 4.90, Wing length 61.26, Tail length 46.67, Tarsus 19.1  
Middle toe 18.72, Hallux with claw 13.42, Roundness 9.02  
Molt <sup>41.37</sup>49.08 10, Tail <sup>33.46</sup>41.86,  
Gonads ovary 3.34 x 1.95

fat much

right tibia ~~not~~ broken

JIS 213 *Melospiza melodia fisherella* ♂ ad. sk. 16 August 1990. wt. 20.5 gms.  
Reared  
Mate of JIS 208. ~~Parent~~ of JIS 209 + 212. Parent of JIS 211.  
Skin + Partial skeleton. Intestine + Stomach saved. Bill length 8.76,  
Bill depth 5.88, Bill width 4.84, Wing length 65.61, Tail length 70.58,  
Tarsus 20.55, Middle toe 17.76, Hallux with claw 14.00, Roundness 10.51  
Molt tail coverts, Primaries  
Gonads: Testis L-2.56 x 1.66

R- 2.63 x 1.57

fat & gut cng 1 tibia saved

Found a parasite in the kidney saved with stomach.

JIS 214 *Melospiza melodia fisherella* ♂ imm sk. 22 August 1990. wt 18.5 gms  
Young of JIS 215, sib of JIS 186 + 187 + JIS 201. Banded 77-96111 BL  
20 days old. Skin + Partial skel. Intestine + stomach <sup>much fat</sup> saved. Bill  
length 6.94, Bill depth 5.56, Bill width 4.20, Wing length 62.95,  
Tail length 44.68, Tarsus 21.41, Middle toe 17.60, Hallux with claw 14.66  
Roundness 12.23, Molt <sup>41.28</sup>48.75 10, <sup>28.55</sup>38.17 tail. Testis: L 1.93 x 0.96  
T. b. a. sm. 2.12 x 1.48

JIS 215 *Melospiza melodia fisherella* ♀ ad sk. 22 August 1990. wt 19.5 gms  
Banded 77-96109 <sup>BL</sup>OR. Parent of JIS 214, 186, 187, 201. Skin + Partial skel. Intestine + stomach saved.  
Bill length 9.26, Bill depth 5.87, Bill width 5.27, Wing length 57.69, Tail length 63.45, Tarsus 19.12,  
Middle toe 17.87, Hallux with claw 14.20, Roundness 6.80, Molt head <sup>100%</sup>4.57 12.19. 1/2 full 0.63  
Gonads. One tibia shot 5 mm fat







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Paoha Island, Mono Lake, Mono Co., CA.

JIS 216

Microtus californicus ♂ collected by M. Morrison #900427-2.

prep JIS. 27 April 1990 174-55-22-15. SKIN + SKULL SAVED  
 not scrotal. left Testis 11mm, Right T 13mm; seminal vesicle left 23mm.  
 r., ut 20mm

1991

Sagehen Creek Field Station, 3mi NW Hobart Mills, Nevada Co., Calif 6300ft

JIS 217

Melospiza melodia fischerella. ♀ ad SK. 11 July 1991. wt. 25.0g

may JIS 211

7.18 x 0.0004  
 2.61 x 2.75

Banded 77-96150 GL/FW BL/OR. SKIN + partial skeleton.

Tissue ~~not~~ saved. See 11 July 1991 journal for measurements much fat

JIS 218

Melospiza melodia fischerella ♂ imm SK. 11 July 1991 wt. 23.0g

Banded 77-96128 + PK. SKIN + partial skel. Tissue saved. 23 days old

Bill length 7.26, Bill depth 5.65, Bill width 4.75, wing length 65.09,

Tail length 50.84, Tarsus 19.76, middle toe 18.27

Hallux with claw 13.95, Molt primary #3 <sup>51.33</sup> 51.33 tail <sup>38.82</sup> 48.48Roundness <sup>7.63</sup> 7.63. Mother is 77-96118 / PK PK/PK. Sib q 219-221. <sup>Tests 1.53 x 0.93</sup>

JIS 219

Melospiza melodia fischerella imm SK. 11 July 1991 wt 23.50g

Banded 77-96127 + PK. SKIN + partial skel. Tissue saved. 22 days old

Bill length 7.08, Bill depth 5.00, Bill width 4.44, wing length 61.38,

Tail length 46.65, Tarsus 20.10, middle toe 18.61

hallux + claw 14.94, Molt primary #3 <sup>49.22</sup> 49.22 tail <sup>35.46</sup> 43.42Roundness <sup>7.64</sup> 7.64. sib q JIS 218, 220 + 221. Mother is 77-96118.

JIS 220

Melospiza melodia fischerella. imm SK. 11 July 1991. wt. 20.0g

Banded 77-96126 + PK. SKIN + partial skel. Tissue saved. 23 days old

Bill length 7.04, Bill depth 4.99, Bill width 4.16, wing length 60.94,

Tail length 49.44, Tarsus 19.42, middle toe 17.30, hallux 13.11

Molt 3rd primary <sup>50.21</sup> 50.21, tail <sup>38.15</sup> 46.12 Round 6.54

sib 221 + 218-219. Mother is 77-96118. Corns not found





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Sagehen Creek Field Station, 3 mi NW Hobart Mills, Nevada Co, July 6300 ft

JIS 221 Melospiza melodia fischerella 1 imm SK. 11 July 1991 wt. 21.5g  
Banded 77-96125 + PK. skin + partial skull. Tissue saved. 23 days old.  
Bill length 7.34, Bill depth 5.33, Bill width 4.56, wing length 62.50,  
tail length 51.17, Tarsus 19.94, middle toe 19.02,  
hallux w/ claw 14.08 Molt 3rd primary <sup>49.05</sup> 49.05 tail <sup>39.90</sup> 48.54  
Roundness 7.85 sub of JIS 218-220. Mother 77-96118.  
Left tarsus shot - Cornuads not found

JIS 222 Melospiza melodia fischerella. ♂ imm SK. 12 July 1991 wt. 24.0g  
Banded 77-96133 + OR. skin + partial skull. Tissue  
saved. 25 days old. Bill length 7.36, Bill depth 5.60,  
Bill width 4.82, wing length 64.96, tail length 57.91,  
Tarsus 20.03, mid toe 18.69, hallux w/ claw 14.17  
roundness <sup>8.59</sup> 8.59 sub of JIS 223-224. Mother is  
77-96136. Molt 3rd primary <sup>50.22</sup> 50.22 tail <sup>41.85</sup> 51.88

JIS 223 Melospiza melodia fischerella ♀ imm SK. 12 July 1991  
wt. 21.0g. Banded 77-96135 + OR. 25 days old. Bill length 7.30  
Bill depth 5.32, Bill width 4.77, wing length 61.66, Tail length <sup>52.72</sup> 52.72,  
Tarsus 18.81, mid toe 17.94, hallux w/ claw 13.07  
roundness 9.09, Molt 3rd primary <sup>46.60</sup> 46.60 tail <sup>38.92</sup> 48.95  
sub of JIS 222, + 224. Mother is 77-96136.

JIS 224 Melospiza melodia fischerella 1 imm SK. 12 July 1991. wt. 22.0g  
Banded 77 96134 + OR. 26 days old. Bill length 7.21, Bill depth 5.26  
Bill width 4.52, wing length 61.50, tail length 59.20, Tarsus 19.33  
Middle Toe 19.13, hallux with claw 12.69, Roundness 7.04  
Molt 3rd primary <sup>50.23</sup> 50.23, tail <sup>46.30</sup> 54.09 sub of 222-223. Mother  
is 77-96136. Cornuads shot





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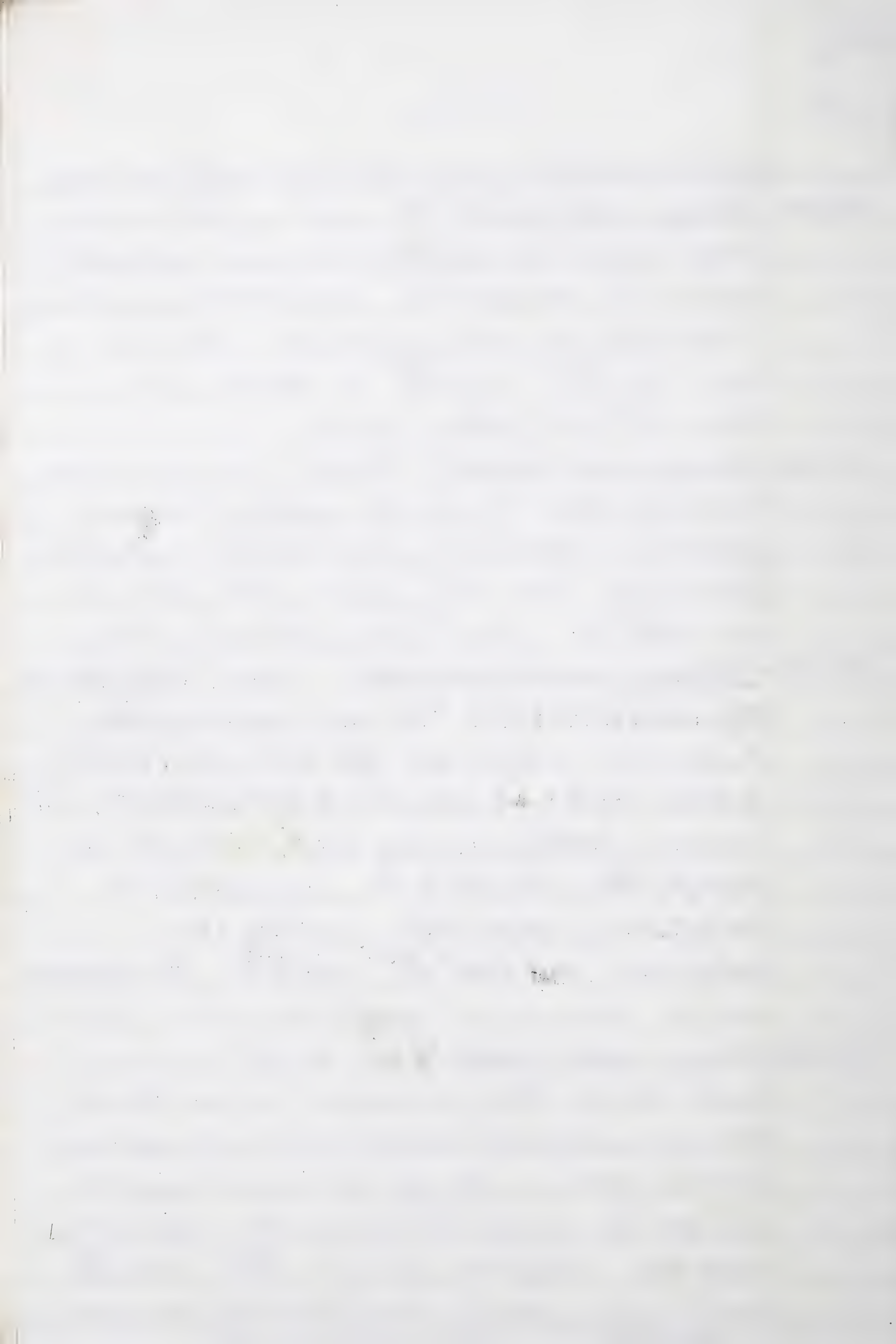
Sagehen Creek Field Station, 3mi NW Hobart Mills, Nevada Co, Calif. 6300ft

JIS 225 Melospiza melodia fisheriella ♀? 1mm SK. 12 July 1991. wt. 22.0g  
Banded right green. skin + partial skel. Tissue saved. 22 days old.  
Bill length 6.46, Bill depth 5.14, Bill width 4.69, wing length 60.61,  
tail length 48.79, tarsus 13.91, mid toe 18.27, hallux 13.62  
molt 3rd 1° <sup>47.99</sup> 47.99, tail <sup>33.39</sup> 43.30. Roundness 7.38  
mother is 77-96117, father is JIS 226.

JIS 226 Melospiza melodia fisheriella ♂ ad SK. 12 July 1991. wt. 23.50g  
Banded 2031-08924 PK/FW OR, skin + partial skel. Tissue saved.  
Bill length 9.25, Bill depth 5.74, Bill width 4.45, wing length 66.56,  
tail length 69.93, tarsus 19.23, mid toe 18.89, hallux 13.58  
molt 1° 3rd <sup>47.99</sup> 47.99 none, Round 7.55 father of JIS 225. mother 77-96117.

JIS 227 Melospiza melodia fisheriella 1mm SK. 24 July 1991, wt.  
18g. Banded 77-96153 Rd/Rd. skin + partial skeleton.  
Tissue saved. 14 days old. This bird was incubated,  
hatched, brooded and collected at Big Creek Reserve, 5mi  
N Lucia, Monterey Co., Calif 400ft. Bill length 5.65,  
Bill depth 4.50, Bill width 4.25, wing length 52.24,  
tail length 26.30, tarsus 20.95, mid toe 18.19,  
hallux 13.10, molt: 3rd 1° <sup>36.27</sup> 41.10, tail <sup>12.84</sup> 23.35, Roundness 9.47  
much fat Gonads not found sib of JIS 228, Mother 77-96148 (JIS 265)

JIS 228 Melospiza melodia fisheriella ♂ imm SK 28 July 1991 wt. 20.5g.  
Banded 77-96155 Rd/Rd. skin + partial skel. Tissue saved. 18 days old  
This bird was incubated, hatched, brooded and collected at Big Creek Reserve,  
5mi N Lucia, Monterey Co., Calif. 400ft. Bill length 6.48, Bill depth 4.77,  
Bill width 3.72, wing length 59.72, tail length 35.10, Tarsus 19.86,  
mid toe 18.29, hallux 13.94, molt 2nd 1° <sup>39.32</sup> 46.22, tail <sup>17.55</sup> 28.57  
Round 8.01 sib of JIS 227. Testes left 1.45x0.82, right not found  
much fat mother 77-96148 (JIS 265)





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Big Creek Reserve, 5 mi N Lucia, Monterey Co., Calif 400 ft

JIS 229 Melospiza melodia cooperi. ♀ ad sk. 28 July 1991. wt. 17.5g  
SKin + partial skel. Tissue saved. Mated to 77-96156. Reared  
transplant clutch JIS 227-228. Bill length 8.20, Bill depth 5.37  
Bill width 4.47, Wing length 57.23, Tail length 56.59, Tarsus 17.73  
Midtoe 17.82, hallux 13.10, not tail molt  
Roundness 10.75 3.70 x 2.76 left ovary

JIS 230 Melospiza melodia cooperi im sk. 28 July 1991 wt. 5.5g  
Alcoholic. Tissue saved. Offspring of FW/BL ♂<sup>1</sup> on new  
research facility. sib of JIS 231. ~7 days old. Died of starvation.  
♂ is not feeding. Bill length 3.25, Bill depth 2.71, Bill width 2.38,  
Wing length 16.79, Tail length —, Tarsus 0, Midtoe 29.28,  
hallux 10.06, molt 3rd 1°  $\frac{0}{9.17}$ , tail X. Roundness 1.70

JIS 231 Melospiza melodia cooperi im sk. 28 July 1991 wt. 5.0g  
Alcoholic. Tissue saved. Offspring of FW/BL ♂<sup>1</sup> on new research facility.  
sib of JIS 230. ~7 days old, died of starvation. Bill length 3.43,  
Bill depth 3.00, Bill width 2.42, Wing length 18.26, Tail length 2.43  
Tarsus 15.27, midtoe 14.41, hallux 10.37, molt 3rd 1°  $\frac{2.16}{11.64}$ ,  
tail 1.13. Roundness 5.42 Right leg red.

JIS 232 Melospiza melodia cooperi ♀? im sk. 29 July 1991 wt. 17.0g.  
SKin + partial skeleton. Tissue saved. Bill length 7.96, Bill depth 5.15,  
Bill width 4.49, wing length 56.87,  57.36, Tarsus 18.96  
Midtoe 17.70, hallux 14.35,  3rd 1°  $\frac{46.80}{46.80}$ , tail  $\frac{54.66}{54.66}$ .  
Roundness 6.55. Gonads short. Some fat

JIS 233 Melospiza melodia cooperi. im sk. 29 July 1991. wt. 16.0g. SKin + partial skel.  
Tissue saved. Bill length 8.05, Bill depth 4.98, Bill width 4.60, Wing length 54.37,  
Tail length 60.18, Tarsus 17.82, Midtoe 17.52, Hallux 14.37  
Molt 3rd 1°  $\frac{44.46}{44.46}$ , tail  $\frac{56.72}{56.72}$ , Round 8.36  
Gonads not found. much fat





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Bis Creek Reserve 5 mi N Lucia, Monterey Co., Calif. 400ftJ15234 Melospiza melodia cooperi ♂ im sk. . wt. 18.0g. 29 July 1991.

Skin + partial skeleton. Tissue saved. Bill length 7.99, Bill depth 5.08,  
 Bill width 4.60, ~~tail~~ wing length 58.30, tail length 61.42, Tarsus 18.68,  
 mid toe 17.64, hallux 13.43, molt 3rd 1°  $\frac{45.80}{45.80}$ , tail ~~61.42~~  $\frac{45.80}{45.80}$ ,  
 Roundness 7.73 left tarsus shot nucleated. bones not found 57.48

J15235 Melospiza melodia cooperi im sk. wt 18.0g. 29 July 1991. 57.48

skin + partial skel. Tissue saved. Bill length 7.96, Bill depth 4.96,  
 Bill width 4.78, wing length 56.50, Tail length 57.33, Tarsus 18.55,  
 Mid toe 17.31, hallux 14.22, molt: 3rd 1°  $\frac{43.07}{43.07}$ , tail  $\frac{54.69}{54.69}$ ,  
 Roundness 6.83 left leg shot bones not found

J15236 Melospiza melodia cooperi ♂ im sk. 29 July 1991 wt. 21.0g

skin + partial skel. Tissue saved. Bill length 7.98, Bill depth 5.24,  
 Bill width 4.39, wing length 60.65, Tail length ~~65.21~~  $\frac{64.46}{64.46}$ , Tarsus 19.59  
 Mid toe 18.58, hallux 14.81, molt: 3rd 1°  $\frac{49.28}{49.28}$ , tail ~~65.21~~  $\frac{64.23}{64.23}$ ,  
 Roundness 6.14 left testis 1.14 x 0.73

J15237 Melospiza melodia cooperi im sk. 29 July 1991. wt. 19.0g

skin + partial skel. Tissue saved. Bill length 7.91, Bill depth 5.20,  
 Bill width 4.44, wing length 59.72, tail length 60.35, Tarsus 19.09,  
 mid toe 17.58, hallux 14.05, molt 3rd 1°  $\frac{47.45}{47.45}$  tail  $\frac{60.34}{60.34}$ ,  
 Roundness 7.04 lots of fat. bones not found.

J15238 Melospiza melodia cooperi im sk. 29 July 1991 wt. 20.0g

skin + partial skeleton. Tissue saved. Bill length 7.67, Bill depth 5.25,  
 Bill width 4.42, wing length 59.63 Tail length 62.46, Tarsus 19.89,  
 mid toe 17.92, hallux 13.95, molt 3rd 1°  $\frac{48.78}{48.78}$ , tail  $\frac{58.76}{58.76}$ ,  
 round 7.49 bones not found





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Big Creek Reserve, 5 mi N Lucia, Monterey Co., Calif 400ft

JIS 239 Melospiza melodia cooperi ♀ adsk. 7 August 1991 wt. 16.50g.  
skin + partial skeleton. Tissue saved. Bill length 8.30, Bill depth 5.24,  
4.5 x 1.37 <sup>left mand</sup> Bill width 4.73, wing length 55.67, tail length 56.23, tarsus 18.38,  
midtoe 16.42, hallux 13.64, molt no, Randnum 9.39

JIS 240 Melospiza melodia cooperi imsk 6 August 1991. wt 17.0g  
skin + partial skeleton. Tissue saved. Bill length 7.67, Bill depth 5.31,  
Bill width 4.47, wing length 53.78, Tail length 55.20, Tarsus 17.52,  
Midtoe 16.36, hallux 13.63, molt 3rd 10 <sup>43.74</sup> 43.74 tail <sup>52.05</sup> 52.05  
Randnum 6.86

Sagehen Creek Field Station, 3 mi NW Hobart Mills, Nevada Co., Calif 6300ft

JIS 241 Melospiza melodia fischerella ♂ imsk. 7 August 1991. wt. 18.0g.  
16 days old. Banded 77-96162 <sup>Red</sup>. This bird was incubated, hatched,  
reared, and collected at Big Creek Reserve, 5 mi N Lucia, Monterey Co., Calif 400ft.  
Offspring of JIS 217. Tissue saved. Bill length 5.92, Bill depth 4.48,  
Bill width 4.36, wing length 55.60, Tail length 25.43, Tarsus 20.92,  
Midtoe 17.35, Hallux 12.63, molt 3rd 10 <sup>37.44</sup> 41.78 tail <sup>16.47</sup> 24.38  
Randnum 5.71 Reared by JIS 239. Right wing shot. Lots of fat.  
Liver was yellow. mother JIS 217

JIS 242 Melospiza melodia fischerella ♂ adsk 9 August 1991. wt 20.5g. Banded  
77-96119 <sup>BL/FW</sup> <sup>OL</sup> PK. mate of JIS 243. Father of JIS 244-245. Tissue saved.

Also father of 77-96122-124. Bill length 8.83, Bill depth 6.12, Bill width 4.84,  
Wing length 62.90, Tail length 60.94, Tarsus 19.23, Midtoe 18.15, Hallux 13.37,  
<sup>left</sup> <sup>sub</sup> molt no, Rand 6.16 left leg shot 1st to 3.49 x 1.69; 2.61 x 1.19-R

JIS 243 Melospiza melodia fischerella ♀ adsk. 9 August 1991. wt 20.0g. mate of JIS 242  
mother of JIS 244-245 + 77-96122-124. Tissue saved. Bill length 8.66, Bill depth 5.98,  
Bill width 5.17, Wing length 61.72, Tail length 59.15, Tarsus 20.38, Midtoe 18.02, hallux 13.72,  
molt no, Rand 7.00 3.44 x 2.34 left wing legs shot  
5th ft VIAL 242A is tissue not in Alc hol





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# Catalog

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Sagehen Creek Field Station, 3 mi NW Hobart Mills, Nevada Co, Calif 6300 ft

J15244 Melospiza melodia fisherella ♂ imm. 23 days old. 9 August 1991. wt 20.5g

Father is J15242, mother J15243, sib J15245. Banded 77-96 157 BL. Tissue saved.

Bill length 6.82, Bill depth 4.35, Bill width 4.79, wing length 62.09, Tail length 44.27

Tarsus 18.45, mid toe 19.90, hallux 13.14, molt 3rd 1°  $\frac{47.29}{51.39}$ , tail  $\frac{30.68}{38.95}$

Round 5.96. Some feet L- 1.08 x 0.47, 0.90 x 0.62 - R

J15245 Melospiza melodia fisherella ♂? imm. 23 days old. 9 August 1991 wt. 19.5g.

Parents J15242-243, sib J15244. Tissue saved. Banded 77-96 159 BL. Bill length 7.25,

Bill depth 5.52, Bill width 5.08, Wing length 60.78, Tail length 50.69, Tarsus 19.21,

mid toe 19.20, hallux 13.35, molt: 3rd 1°  $\frac{49.03}{49.03}$ , tail  $\frac{36.33}{43.34}$ , Round 7.21

J15246 Melospiza melodia fisherella ♂ imm. unbanded. 9 August 1991 wt. 20.0g

Bill length 8.25, Bill depth 6.18, Bill width 4.78, Wing length 66.29, Tail length 67.84,

Tarsus 20.25, Mid toe 17.98, Hallux 14.22, molt: 3rd 1°  $\frac{51.60}{51.60}$ , tail  $\frac{66.47}{66.47}$ ,

Round 7.52 Tissue saved left tarsus shot L 1.27 x 0.69, R 1.14 x 0.95

J15247 Melospiza melodia fisherella ♀ ad. sk. 10 August 1991. wt. 19.0 gm.

Banded 77-96 104  $\frac{OR}{FW}$   $\frac{BL}{TL}$ . Reared J15249+250, mate J15248. Mother of

77-96/67 - 170 (J15251). Tissue saved. Bill length 8.17, Bill depth —,

Bill width 4.22, Wing length 62.27, Tail length 58.70, Tarsus 18.35, Mid toe 18.54,

Hallux 14.21, molt NO, Round 7.30.

Lower mandible shot. Molt wing 4.77 x 2.27 mm, left leg shot.

J15248 Melospiza melodia fisherella ♂ ad. sk. 10 August 1991. wt. 20.0 gus.

Banded 77-96 178  $\frac{FW}{OR}$   $\frac{BL}{TL}$ . Reared J15249+250, mate J15247. Father of J15251+275

170 (J15251). Tissue saved. Bill length 8.17, Bill depth 5.93, Bill width 4.72,

Wing length 64.16, Tail length 63.47, Tarsus 19.18, Mid toe 18.58, Hallux 14.53,

molt NO, Round 6.30. Some feet L- 3.08 x 1.92

R 2.65 x 3.05





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Sagehen Creek Field Station, 3 mi NW Hobart Mills, Nevada Co., Calif. 6300 ft

J15249 Melospiza melodia fisherella ♂ imm. 10 August 1991. wt 18.0 gms  
17 days old. Mother J15247, father J15248. Reared by J15247-248.

sib 250. Mother J15252. Tissue saved. Bill length 5.71, Bill depth ---,  
Bill width 3.39, Wing length 56.88, Tail length 31.67, Tarsus 20.49, Midtoe 19.07,  
Hallux 13.65, molt: 3rd 1°  $\frac{41.09}{46.63}$ , tail  $\frac{15.07}{25.29}$ ; Round 5.26  
Bill skt. Banded 77-96174 BL. Tarsus L-1.29+0.79, R-1.16+0.82

J15250 Melospiza melodia fisherella ♂ imm. 10 August 1991. wt 17.50 gms.

Banded 77-96173 BL. 17 days old. Reared J15247-248, sib J15249, mother J15252.  
Tissue saved. Bill length 5.42, Bill depth 4.34, Bill width 3.77,  
Wing length 54.11, Tail length 31.12, Tarsus 19.69, midtoe 18.56,  
Hallux 13.47, molt:  $\frac{17.81}{28.13}$ , 3rd 1°  $\frac{40.19}{44.65}$ ; Round 6.36

J15251 Melospiza melodia fisherella ♂ imm. 11 August 1991. wt. 17.0 gms

Banded 77-96170 BL. 16 days old. Parents J15247+248. Reared by J15252 +264  
Tissue saved. Bill length 5.57, Bill depth 4.29, Bill width 3.62, wing length 56.71,  
Tail length 31.05, Tarsus 19.35, midtoe 18.58, Hallux 13.33,  
molt: 3rd 1°  $\frac{40.89}{44.24}$ , tail  $\frac{13.92}{25.22}$ ; Round 5.74, L-1.14+0.84, R-1.11+0.82

J15252 Melospiza melodia fisherella ♀ adsk. 11 August 1991. wt. 18.0 gms.

Banded 77-96025 BL FL. Reared J15251. Mother of 249+250. Tissue saved.  
Bill length 9.01, Bill depth 5.39, Bill width 4.20, Wing length 63.16, Tail length 64.33,  
Tarsus 20.88, midtoe 17.48, hallux 13.56, Molt: 2nd 1° 20, Round 8.24  
Mother of J15264

J15253 Melospiza melodia fisherella ♂ imm. 10 August 1991 wt. 19.0 gms.

unbanded. Tissue saved. Bill length 7.09, Bill depth 5.18, Bill width 3.98,  
Wing length 64.37, Tail length 52.29, Tarsus 20.10, midtoe 19.04, Hallux 14.37,  
molt: 3rd 1°  $\frac{49.09}{51.61}$ , tail  $\frac{42.38}{50.30}$ ; Round 6.34 Tick found on right side of  
mouth. skeleton Only Right T 1.61 x 1.36; L 2.05 x 1.24





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Sagehen Creek Field Station, 3 mi NW Hobart Mills, Nevada Co., Calif. 6300 ft

J15254 *Melospiza melodia fisherella* imsk. 10 August 1991 wt. 17.0 gms  
unbanded. Tissue saved. Bill length 7.66, Bill depth 5.71, Bill width 4.26,  
Wing length 58.10, Tail length 58.57, Tarsus 19.25, Midtoe 17.75, hallux 13.90,  
gonads not found molt: 3rd 1°  $\frac{47.19}{47.19}$ , tail  $\frac{56.03}{56.03}$ ; Roundness 6.50. skeleton only.

J15255 *Melospiza melodia fisherella* adsk. 11 August 1991 wt. 19.50 gms  
unbanded. Tissue saved. Bill length 9.31, Bill depth 5.71, Bill width 5.09,  
Wing length 64.05, Tail length molt, Tarsus 19.65, Midtoe 18.68, hallux 14.98,  
molt: 3rd 1°  $\frac{47.19}{47.19}$ , tail  $\frac{56.03}{56.03}$ ; Roundness 7.02. skeleton only

J15256 *Melospiza melodia fisherella* ♀ adsk. 11 August 1991. wt. 17.0 gms  
banded 77-96149 PK FW BK GR, Tissue saved. Reared J15257. Mother of  
transplant 77-96151. Bill length 8.42, Bill depth 5.91, Bill width 4.67,  
Wing length 60.40, Tail length 60.71, Tarsus 19.92, Midtoe 17.08,  
hallux 13.99, molt: 1° 10, Roundness 7.22 Gonads + left leg shot  
Tapered in body cavity

Big Creek Reserve, 5 mi N Lucia, Monterey Co., California 400 ft elev.

J15257 *Melospiza melodia cooperi* ♂ imsk. 11 August 1991 wt. 15.5 gms  
Banded 77-96166 OR. 17 days old. Reared by J15256. This chick was  
incubated, reared + collected at Sagehen Creek Field Station, 3 mi NW Hobart  
Mills, Nevada Co., Calif 6300 ft elev. Bill length 6.23, Bill depth 4.40,  
Bill width 3.92, Wing length 53.60, Tail length 31.00, Tarsus 20.04, Midtoe 16.77,  
Hallux 12.54, molt: 3rd 1°  $\frac{39.32}{44.05}$ , tail  $\frac{17.96}{28.44}$ . Round 5.98  
1 leg + gonads shot

Sagehen Creek Field Station, 3 mi NW Hobart Mills, Nevada Co., Calif. 6300 ft.

J15258 *Melospiza melodia fisherella* ♀ adsk. 22 August 1991 wt. 18.5 g  
unbanded. Parent of 77-56175-77. Mate of J15259. Bill length 8.95  
Bill depth 5.82, Bill width 4.91, Wing length 59.98, Tail length 64.36,  
Tarsus shot, midtoe 17.31, hallux 13.21, molt: no  
Round 9.57 left ovary 3.44 x 2.16 266 + 266





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Sagehen Creek Field Station, 3mi NW Hobart Mills, Nevada Co., Calif 63086

J15259 Melospiza melodia fisherella ♂ adsk. 22 August 1991. wt. 21.0gms  
unbanded parent of 77-96175-77. Mate of J15258. Bill length 8.26,  
Bill depth ~~5.78~~ <sup>5.78</sup>, Bill width 5.06, Wing length 60.96, Tail length 57.87,  
Tarsus 19.44, Midtoe 17.63, hallux 19.49, molt: Tail coverts  
Round 7.02 Tissue saved. L-T 2.57x1.54, R 2.43x1.68

J15260 Melospiza melodia fisherella ♂ adsk. 23 August 1991 wt. 22.0gms  
unbanded parent of 77-96185-88 mate of <sup>wh</sup> ~~wh~~ <sup>wh (J15265)</sup> ~~fw~~ Tissue saved.  
Bill length ~~9.53~~ <sup>9.53</sup>, Bill depth 5.78, Bill width 4.97, Wing  
length 65.76, Tail length 64.75, Tarsus 19.32, Midtoe 19.10,  
hallux 14.06, molt: Tail coverts, parent of J15262  
Round 8.61 L - 2.09x1.59; R 2.04x1.72 Testes-

J15261 Melospiza melodia fisherella ♀ adsk 22 August 1991 wt 19.0gms  
banded ~~77-96116~~ <sup>GP OR</sup> ~~FW OR~~ parent of 77-96189-190. Reared 77-96185-  
77-96188. Tissue saved. (Mate was banded last yr ~~GP OR~~ <sup>GP OR</sup>?). Bill length 8.53,  
Bill depth 5.67, Bill width 4.93, Wing length 62.39, Tail length 66.27,  
Tarsus 20.83, Midtoe 16.45, hallux 13.71, molt: Tail coverts 170  
Round 8.44 left ovary. 4.34x2.46 left leg shot

J15262 Melospiza melodia fisherella ♀ imsk. 22 August 1991 wt. 16.0gms  
banded 77-96186 wh. Reared by J15261. Offspring of J15260 + <sup>wh wh</sup> ~~wh fw~~  
15 days old. Tissue saved. Bill length 6.22, Bill depth 4.33, Bill width 4.29,  
Wing length 52.06, Tail length 21.85, Tarsus 19.06, Midtoe 18.45, hallux 13.80,  
molt: . Reared 3rd <sup>34.14</sup> ~~38.93~~, tail <sup>12.22</sup> ~~20.05~~ Round 7.42  
left ovary 2.04x1.24 some fat

J15263 Melospiza melodia fisherella ♂ adsk. 22 August 1991. wt. 21.0gms  
Banded 1431-14508 BK. Tissue saved. Bill length 8.37, Bill depth 5.84, Bill width 4.27,  
Wing length 66.34, Tail length molting, Tarsus 19.30, Midtoe 18.58, Hallux 13.74,  
molt: tail + 1", belly Round 9.23 Right leg shot Testes L-2.24x1.62, R 1.83x2.47  
some fat





with, J

1991

## Catalog

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Sagehen Creek Field Station, 3 mi NW Hobart Mills, Nevada Co., Calif. 6300 ft

- J15264 *Melospiza melodia fisherella* ♂ adsk. 21 August 1991 wt. 24.5 gms  
Banded 77-96179 <sup>FW</sup><sub>BL</sub> <sup>WH</sup><sub>PK</sub> Mate of J15252. Reared J15251+  
Parent of J15249+250. Tissue saved. Bill length 9.17, Bill depth 6.26,  
Bill width 5.42, Wing length 65.67, Tail length 65.73, Tarsus 21.15, Mid toe 17.50,  
hallux 14.50, no 1st 10's, wing + tail coverts Round 8.94  
Both legs shot much fat Testes L 2.42 x 2.04, R 2.13 x 1.76.
- J15265 *Melospiza melodia fisherella* ♀ adsk. 22 August 1991 wt. 20.5 gms  
Banded 77-96148 <sup>WH</sup><sub>FW</sub> <sup>WH</sup><sub>FW</sub> Mate of J15260. Reared  
Parent of J15262. Tissue saved. Bill length 9.22, Bill depth 6.02,  
Bill width 4.88, Wing length 60.53, Tail length 61.13, Tarsus 20.38  
Mid toe 17.51, hallux 14.56. Molt: tail coverts  
Round 5.44 L Ovary 2.22 x 4.07 some fat
- J15266 *Melospiza melodia fisherella* ♀ imsk. 22 August 1991 wt. 21.0 gms  
Banded 77-96176 <sup>BR</sup> offspring of J15258+259. sib of 77-96175+177. <sup>J15268</sup>  
29 days old. Tissue saved. Bill length 7.52, Bill depth 5.55, Bill width 4.53,  
Wing length 65.41, Tail length 57.70, Tarsus 18.90, Mid toe 18.0, Hallux 13.87,  
Molt: 3rd 10 <sup>50.27</sup><sub>50.27</sub>, tail <sup>44.24</sup><sub>54.71</sub> Round 10.28 much fat Left ovary 2.82 x 1.08
- J15267 *Melospiza melodia fisherella* ♂ imsk. 22 August 1991 wt. 15.5 gms  
Banded 77-96190 <sup>BR</sup> offspring of J15261. sib of J15274. <sup>round 265+260 15</sup> days old.  
Tissue saved. Bill length 5.32, Bill depth 4.25, Bill width 4.09,  
Wing length 46.88, Tail length 47.92, Tarsus 19.79, Mid toe 17.33,  
Hallux 12.25, Molt 3rd 10 <sup>31.76</sup><sub>37.76</sub>, tail <sup>9.84</sup><sub>14.98</sub>,  
Round 6.46 Right leg shot Gonads shot Round J15265+260.
- J15268 *Melospiza melodia fisherella* ♀ imsk. 22 August 1991 wt. 17.0 gms  
offspring of J15258+259. sib of J15266. Banded 77-96177 <sup>BR</sup>. 29 days old  
Tissue saved. Bill length 7.41, Bill depth 5.20, Bill width 4.45, Wing length 59.95, Tail  
length 54.23, Tarsus 20.20, Mid toe 16.64, hallux 13.60, molt 3rd 10 <sup>46.86</sup><sub>46.86</sub>,  
tail <sup>39.88</sup><sub>46.82</sub> Round 7.13 left ovary 2.01 x 2.00 some fat





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Sagehen Creek Field Station, 3mi NW Hobart Mills, Nevada Co., Calif 96081

- JIS 269 Melospiza lincolni ♂ adsk. 23 August 1991 wt. 21.0gms  
skeleton only Tissue saved. some fat
- JIS 270 Melospiza lincolni ♂ adsk 23 August 1991 wt. 18.5gms  
skeleton only. Tissue saved. some fat Primaries + tail molting
- JIS 271 Melospiza melodia fisherella ♂ imsk 22 August 1991 wt. 21.0gms  
skeleton only. Tissue saved. Gonads shot some fat
- JIS 272 Melospiza melodia fisherella ♀ imsk 22 August 1991 wt. 21.0gms  
skeleton only. Tissue saved some fat
- JIS 273 Melospiza melodia fisherella ♂ imsk 22 August 1991 wt. 17.5gms  
offspring of JIS 265 + 260, Reared by JIS 261, sib of JIS 262.  
Tissue saved. Banded 77-96185 wh. 15 days old. Bill length 5.94,  
Bill depth 4.19, Bill width 3.66, wing length 52.78, tail length 24.51,  
Tarsus 20.99, Mid toe 16.71, Hallux 13.43, Molt: 3rd 1°  $\frac{33.52}{40.05}$   
tail  $\frac{12.58}{20.28}$ ; Round 4.47 left leg shot, right leg shot much fat  
left T 1.02 x 1.03, R 0.8 x 1.0
- JIS 274 Melospiza melodia fisherella ♂ imsk 23 August 1991 wt. 15.5gms  
Banded 77-96189 GR sib of JIS 267, offspring of JIS 261, Reared by  
JIS 265 + 260. Tissue saved. 16 days old. Bill length 5.19, Bill depth 4.44,  
Bill width 4.24, Wing length 51.06, Tail length 22.79, Tarsus 18.71, Mid toe 17.5,  
hallux 13.09, Molt 3rd 1°  $\frac{33.09}{40.33}$ , tail  $\frac{8.71}{17.82}$ ; Round 4.59  
left Testis 1.21 x 0.87 R 1.35 x 0.89. some fat
- JIS 275 Melospiza melodia fisherella ♂ imsk. 21 August 1991 wt. 19.5gms  
Banded 77-96167 YL. 28 days old. Reared by JIS 252 + 264. sib of JIS 251  
Parents are JIS 247 + 248. Tissue saved. Bill length 6.64, Bill depth 5.10,  
Bill width 4.51, Wing length 64.07, Tail length 54.75, Tarsus 20.62,  
Mid toe 17.47, Hallux 14.19, Molt 3rd 1°  $\frac{50.21}{50.21}$ , tail  $\frac{39.68}{48.69}$ ;  
Round 6.31 Testis 1.50 x 1.19 R 1.29 x 1.09. some fat





Smith, J  
1989

Y

# Banding Catalog

31-14505  
1B

~~Russell Is. Reservation~~ 2 mi NW Lafayette Santa Rosa Co. Calif  
♂? left leg FWS rt leg white date - 9 Mar 1989  
red pink

Bill length - 8.5 ; Bill depth - 4.0  
Bill width - 4.5 ; wing length - 60  
tail length - molting central ; tarsus 20  
mid toe 18 ; hallux w/ claw 12.5  
molt:

Brood patch

age

Skull

fat

cloacal protub 5.0

remarks - captured in net set around  
wood pile ~ 75 yds NE of mulberry patch.

03 1-08501 Russell Is. Reservation

Guam 1989

① u? left leg ~~blue~~ rt yellow  
~~green~~ blue  
~~green~~  
FWS

Bill length - 8.75

Bill depth 5.0

Bill width 4.0

wing length 56

Tail 57

Tarsus 18

mid toe 19

hallux w/ claw 14

molt - none

cloacal protub 4.0

Brood patch no

age ?

Skull

fat - sit fine fat

remarks left main toe deformed





Smith  
1989

# Bandy-Catleg

2

8902

031-8902

(1)

Russell Tree Reservation, 2 mi NW Lafayette Contra Costa Co, Calif

Left leg green/FWS Rt. ~~orange~~ orange/Black

9 May 1989

Bill length 9.0

Bill width 5.5

tail length 61

mid toe 20

molt-head

Brood patch NO

gc

fat - slt fine fat

remarks rear of head very bare and dry

only 2 obvious pin feathers

Bill depth 6.0

Wing length 59

Tarsus 5 19

hallux/claw 14

Cleavical prot. 6.0

skull

2031-8903

BK  
FWS

Green  
OR

caught at small pond  
in pond at S of  
picking area

Bill length 9.0

Bill width 4.5

tail length 63

mid toe 17

molt no

Brood patch no

Age

fat lower belly

remarks

Bill depth 5.5

Wing length 60

Tarsus 5 20

hallux/claw -

cleavical prot. 6.5

skull





with (J)  
1989

# Banding Catalog

3

Russell Her Reservation, 2 mi NW Lafayette, Contra Costa Co., Calif.  
1300 ft.

14 Mar

2031-8904 ♂ at the mulberry bush

Left Blue / rws : Rt Red / green

Bill length 8.5

Bill width 4.5

tail length 6.5

mid toe 17.0

molt

Brood patch no

age no

fat no

remarks

Bill depth 5.5

wing length 60

Tarsus 19.5

hallux w/ claw 13

skull

cloacal 5.5

wt (30 Mar) 23.0g

2031-8905 at the brush pile NE of mulberry

Left Rd / rws : PL / BR. ♀?

Bill length 8.5

Bill width 4.5

Tail length 5.8

mid toe 17

molt

Brood patch no

age no

fat no

remarks

Bill depth 5.5

wing length 58

Tarsus 22

hallux claw 12

skull

cloacal prot. 3





Smith J

1989

# Birdy Catalog

4

Runed Tree Reservoir, San Anselmo, Contra Costa Co., Calif. 1300 ft.

17 Mar

2031-8906 ♀

Y<sub>L</sub> FW:  $\frac{44}{OK}$

Area 5 of mulberry in Backus

Bill length 8.0

Bill width 4.0

tail length molt

mid toe 18.0

note tail

Brood patch no

age

fat 0.2

remarks: Has large tick on left side of cap. Below  
9 beg heard full song by possible mate while banding

Bill depth 5.0

wing length 59

tarsus 18.5

hallux w/claw 13

skull

cloaca 5.0

Killed by  
17 Mar  
Cooper's Hawk  
in net

2031-8907?

Y<sub>L</sub> FW:  $\frac{BK}{PK}$

West of mulberry in Backus

up the slope

Bill length 9.0

Bill width 4.5

tail length 61

mid toe 12

molt no

Brood patch no

age

fat

remarks

Bill depth 5.5

wing length 67

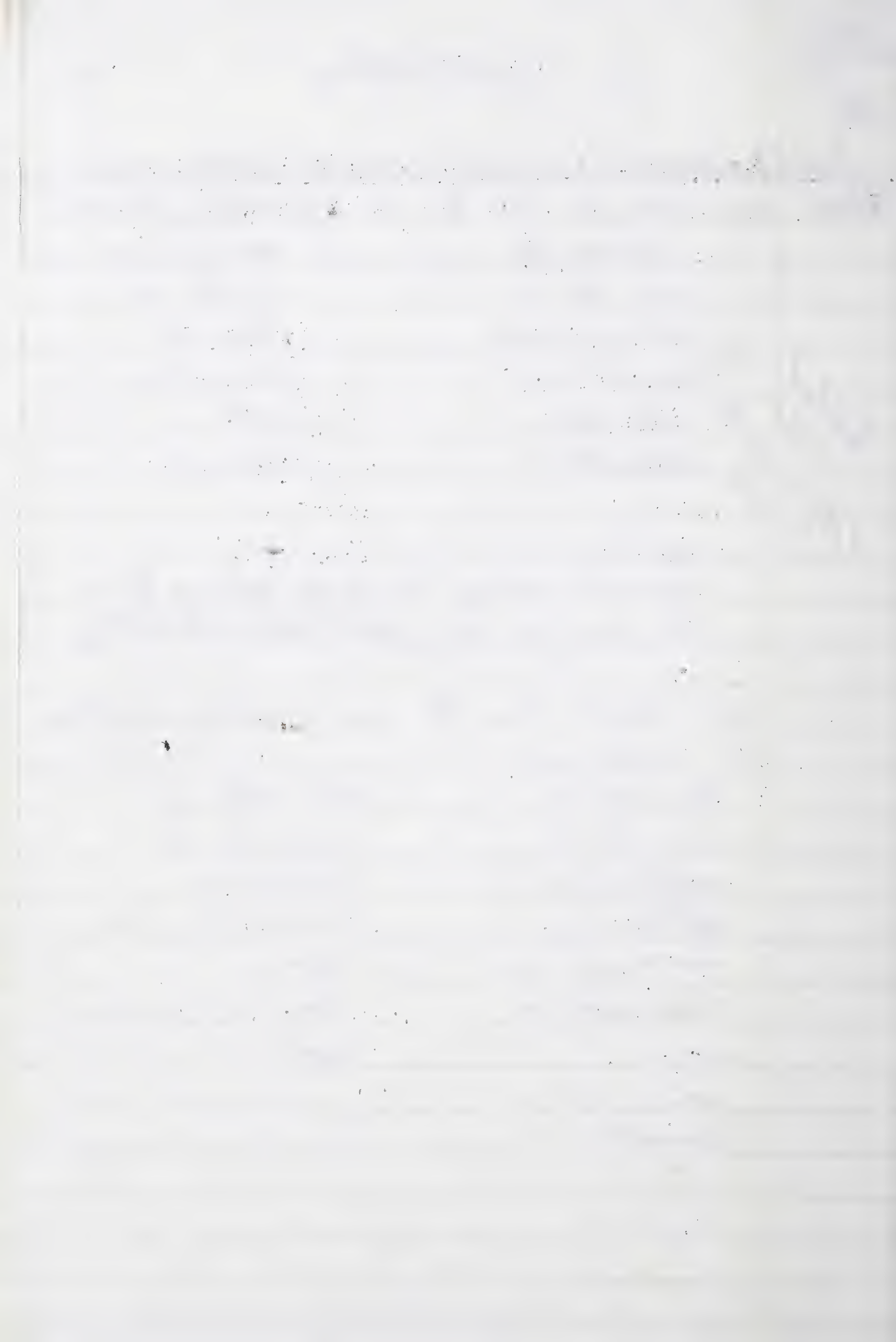
tarsus 19

hallux w/claw 13.5

skull

cloaca 6.5, swollen

wt 21.5





5

28 Mar 2031-8908 In the Hemlock patch E of Malberry  
tree ~ 150 yds.  $\frac{PW}{PK} \frac{PK}{DL} \frac{DL}{BK}$

Bill depth 5.5  
wing length 60.0  
tarsus 21.0  
hull w/ claw 14.0  
skull no  
cloaca 7.0

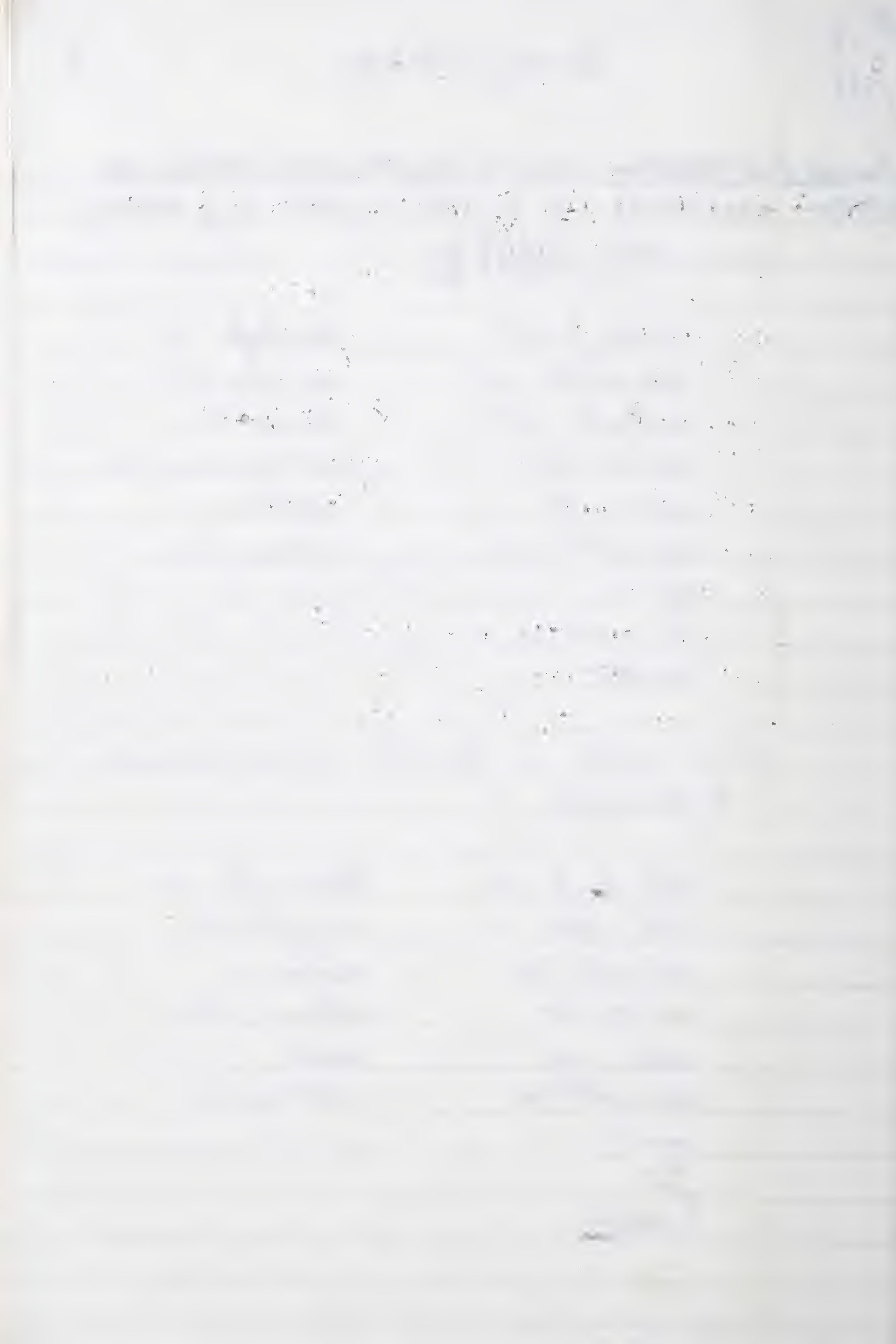
$$\frac{BK}{FW} : \frac{PK}{YL}$$

By the pond.

## At the Bench pile

Bill length 8.0  
Bill width 4.0  
tail length 56  
mid toe 17  
molt no  
brood patch no  
age  
fast  
remarks:

Bill depth 5.0  
wing length 58  
tarsus 20  
hallux + claw 13  
skull  
cloaca 4.5





Smith D

1989

# Birdy Catalog

5

28 Mar 2031-8910 OR . BL on w side of pond. in Hurlack  
FW . RD

Bill length 9.0  
Bill width 5.0  
tail length 60  
mid toe 16  
moist  
brood patch ~~stagnant~~  
age  
fat cloacal


Bill depth 5.5  
wing length 62  
tarsus 20  
hallux w/claw 12.5  
skull  
cloaca 7 swollen

remarks: It would give a full ♂ song and then  
flap its wings back and forth like pre-cop motion.  
screamed as I pulled it out just.

30 Mar 2031-8911 ♂ wh/fw: BK/GR on N hillside 100 yds  
W of cattail pond above the electric fence plot

Bill length 8.5  
Bill width 4.5  
tail length 60  
mid toe 17.5  
moist  
brood patch no  
age  
fat no

Bill depth 5.5  
wing length 59  
tarsus 21  
hallux w/claw 13.0  
skull  
cloaca 6.0 swollen  
wt 20.5

remarks - uropygial gland enlarged 





Smith, J.  
1989

# Banding Catalog

7

Russell Creek Res.

30 Mar

2031-8912 ♂

44 cattail pond

$\frac{FW}{BR} : \frac{OR}{BL}$

Bill length 8.5

Bill depth 5.5

Bill width 4.5

wing length 59

tail length 62

tarsus 20

mid toe 19

hallux w/ claw 14

molt

skull

brood patch no

clouner 7.0

age

wt -

fat no

remarks

31 Mar

2031-8913 ♀

2 most tenney near pin

grove.

$\frac{FW}{BK} : \frac{RD}{BL}$

Bill length 8.0

Bill depth 5.0

Bill width 4.5

wing length 55

tail length 56

tarsus 20

mid toe 19

hallux w/ claw 12.5

molt

skull

brood patch long wing

clouner 6.0

age

wt 18.0

fat

remarks - tongue caught in net, bled.





Smith  
1989

# Banding Catalog

8

Russell Tr Res. 2m: NW Lafayette, Contra Costa Co., Calif 1300 ft.

31 Mar ~~2031-8914~~ <sup>8915</sup> ♂ male y 8913. ~~FW/BK: 72~~ ~~left leg Broken Banded~~ ~~FW/BK: 72~~

at the pine grove on E end of reserve.

Bill length 9.0

Bill depth 6.0

$\frac{FW}{BK} = \frac{72}{72}$

Bill width 5.0

wing length 58

tail length 59

tarsus 21.0

mid toe 20

hallux w/ claw 15.0

molt no

skull

broodpatch

claw 7.0

age

wt

felt furcular

Remarks: flowered orange note on tip of

claw

1B 1431-8506 ♂

~~2031-8915~~

♂

By end of east drive 50 yds W of

road circle.

~~FW/BK: 72~~ ~~left leg Broken Banded~~  $\div : \frac{FW}{BK}$

Bill length

Bill depth

Bill width

wing length

tail length

tarsus

mid toe

hallux w/ claw

molt

skull

broodpatch

claw

age

wt

fat

Remarks: Had large fleshy tarsi





Smith, J  
1989

# Birding Catalog

9

Russell Field - 2 mi NW Lafayette, Contra Costa Co. Calif. 1300ft  
1 April 2031-8916 ♀. Nettle on W side of draw with small  
pine grove. FW/BL:  $\frac{YL}{OR}$

Bill length 8.0	Bill depth 5.5
Bill width 5.0	wing length 60
tail length 58	tarsus 19.0
mid toe 17.0	hallux w/claw 13.0
molt no	skull
broodpatch no	cloaca 4.0
age	wt 19.0 (?)
fat some fat on belly	
remarks	

2031-8917 ♂ mate of 8916. Nettle in W side of draw  
with small pine grove  $\Sigma$  ~~100~~ 200 yds from central  
valley. FW/BL  $\frac{PK}{GR}$

Bill length 9.0	Bill depth 5.5
Bill width 4.5	wing length 58
tail length 59	tarsus 19.5
mid toe 18.0	hallux w/claw 14.0
molt no	skull
Age broodpatch no	cloaca 7.0 swollen
age	wt 20.8
fat <del>at</del> lower breast	
remarks	





Smith, J  
1989

# Banding Catalog

10

Russell In Reservation 2 mi NW Lafayette Contra Costa Co. Calif  
4 April 2031-8918 ♂  
FW/OR: WH/RD

Nestled on S side of draw with small  
pine grove and FW/BL's.

Bill length 9.0

Bill depth 5.5

Bill width 4.5

wing length 63.0

tail length 63.0

tarsus 20.0

mid toe 17.5

hallux w/ claw 14.0

molt no

skull

brood patch no

cloaca 9.0 swollen

age

wt escaped

fat under sternum

remarks 155

18 April Sawyer Creek Field Sta.

Nevada Co., Calif

2031-08919 ♂  
RD/FU OR/BL

Singing

~~1411-1507~~

Bill length 9.5

Bill depth 6.5

Bill width 5.5

wing length 68

tail length 60

tarsus 20

mid toe 20

hallux w/ claw 15

molt no

skull

brood patch no

cloaca 8.0 swollen

age

wt 21.5

fat some pinules ad below sternum

remarks lost 7 tail feathers while banding  
fledged territory on S side of creek  
150 yds from foot bridge in willows  
fuddy





with 18  
1989

# Birdy Catalog

11

Sagehen Creek Field Station

18 April 2031 - 08920 ♂ YL/FW BIC/GR singing

Bill length 10

Bill width 5.5

tail length 70

mid toe 18

molt no

broodpatch no

age

fat little fat some below sternum

remarks had small lice like creatures 1mm long

body segment 2x width of head Tail worn

In a willow thicket 100yds S of 1st

territory flagged it too

Bill depth 7

wing length 70

Tarsus 20

hallux w/claw 14.5

skull

clouca 7.0

wt 21.0

2031-08921 ♂ BL/FW PK/BL

call on island E of YL/FW 350yds flagged

Bill length 9.5

Bill depth 5.5

Bill width 5.0

wing length 69

tail length ~~65~~ 65

Tarsus 21

mid toe 20

hallux w/claw 15

molt no

skull no

broodpatch ?

clouca 6.0

age no

wt escaped

fat under sternum

remarks:





Smith, J  
1989

# Banding Catalog

12

Sagehen Creek Field Station

18 April

2031-08922 ♂ BK/FW RD/YL

60 yds east of BY/FW on S side of creek. Flipped

Bill length 9

Bill width 6

Bill depth 5

wing length 67

tail length 65

Tarsus 19.5

mid toe 19

hallux w/ claw 16.0

molt no

skull no

brood patch no

cloaca 7.0

age

wt 20.0

first indeterminate

remarks

2031-08923 ♂ ~~OR~~ <sup>GR</sup>/<sub>FW</sub> ~~WH~~ <sup>WH</sup>

75 yds E of BK/FW S side of creek in willows. Flipped

Bill length 8.5

Bill width 6.0

Bill depth 5.0

wing length 70

tail length 71

tarsus 20

mid toe 20

hallux w/ claw 15

molt no

skull

brood patch no

cloaca 7 swollen

age

wt 20.5

first indeterminate

remarks





Smith G

1989

# Banding Catalog

13

## Sagehen Creek Field Station

18 April 2031-08924  $\frac{PK}{FW}$   $\frac{BK}{OR}$  ♂?  $\pm$  60 yds from  $\frac{OR}{FW}$  <sup>flipped</sup>

This is the territory where I found nest last year

Bill length 9.5

Bill depth 6.0

Bill width 5.0

wing length 71

tail length 72

tarsus 20

mid toe 19

hallux w/ claw 15

molt no

skull no

brood patch no

claw 0.5 smaller

age no

wt 20.0

fat much present, very little stored

remarks

19 April 2031-08925 ♂ wh/FW  $\frac{PK}{RD}$

1st ♂ 5 side of neck from wing line capsule with all the maxilla <sup>broken</sup> dam

Bill length 9.5

Bill depth 6.0

Bill width 5.0

wing length 70

tail length 69

tarsus 20

mid toe 20

hallux w/ claw 15.0

molt no

skull no

brood patch no

claw 9

age no

wt 19.0

fat no

remarks

scaly at bottom of head/feather shafts

# Mathematics

## Algebra

1. A number is added to 5, the result is 12. Find the number.

2. A number is subtracted from 10, the result is 3. Find the number.

3. A number is multiplied by 4, the result is 20. Find the number.

4. A number is divided by 3, the result is 7. Find the number.

## Geometry

1. A rectangle has a length of 8 and a width of 5. Find the area.

2. A square has a side length of 6. Find the perimeter.

3. A circle has a radius of 4. Find the circumference.

4. A triangle has a base of 10 and a height of 6. Find the area.

5. A parallelogram has a base of 8 and a height of 5. Find the area.



Smith 1989

# Banding Catalog

14

Sagehen Creek Field Station

19 April

2031-08926 ♂

GR/FW  $\frac{OR}{TL}$

Bill length 9.0

Bill width 5.0

tail length 66

mid toe 21.0

molt no

broodpatch.

age

fat no

remarks

Bill depth 6.0

wing length 65

Tarsus 21.0

hallux w/claw 16.0

skull

claw 7.0

wt 19.5

2031-08927 ♂

FW/RO  $\frac{BL}{WH}$

Bill length 9

Bill width 5

tail length 67

mid toe 19

molt no

broodpatch no

age no

fat no

remarks

Bill depth 6

wing length 69

Tarsus 20

hallux w/claw 16.0

skull

claw 7.0

wt 19.0

# 1. Introduction

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2.1.2. The second part of the paper

2.1.3. The third part of the paper

2.1.4. The fourth part of the paper

2.1.5. The fifth part of the paper

2.1.6. The sixth part of the paper

2.1.7. The seventh part of the paper

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2.1.10. The tenth part of the paper

2.1.11. The eleventh part of the paper

2.1.12. The twelfth part of the paper

2.1.13. The thirteenth part of the paper

2.1.14. The fourteenth part of the paper

2.1.15. The fifteenth part of the paper

2.1.16. The sixteenth part of the paper

2.1.17. The seventeenth part of the paper

2.1.18. The eighteenth part of the paper

2.1.19. The nineteenth part of the paper

2.1.20. The twentieth part of the paper

2.1.21. The twenty-first part of the paper

2.1.22. The twenty-second part of the paper

2.1.23. The twenty-third part of the paper

2.1.24. The twenty-fourth part of the paper

2.1.25. The twenty-fifth part of the paper

2.1.26. The twenty-sixth part of the paper

2.1.27. The twenty-seventh part of the paper

2.1.28. The twenty-eighth part of the paper

2.1.29. The twenty-ninth part of the paper

2.1.30. The thirtieth part of the paper



Smith, J

1989

# Banding Catalog

15

Sagehen Creek Field Station.

19 April

2031-08928 ♀

Fu/RD

PK

/BK

mated to 08927

Bill length 9.5

Bill width 5.0

~~tail~~ tail 63

mid toe 20

molt no

broodpatch ~~no~~ lower starting feathers less

age no

fat some preclavicular sternum  
remarks

Bill depth 6.0

wing length 66.5

tarsus 20

hallux w/claw 15

skull

claw 4.0

wt 19.0

1431-4507 IB

~~2031-08929~~ ♂

FW/YL

BL/GR

Bill length 9.0

Bill width 6.0

tail length 67

mid toe 19

molt - yes tail, back molt, tail corrects skull

broodpatch

age

fat no

remarks - tail molt left outer 3 feathers  $\frac{1}{3}$  emerged

rt side 3rd and 4th from outer  $\frac{1}{3}$  emerged

Bill depth 6.0

wing length 68

tarsus 19

hallux w/claw 14

claw 7.0

wt 20.0





Smith, J

1989

# Banding Catalog

16

Sagehen Creek Field Station

19 April ~~1431~~ - ~~1458813~~ <sup>1431</sup> ♂ FW/BL 4L/BK

Bill length 8.5

Bill width 4.5

tail length 64.0

mid toe 19.0

molt no

broodpatch no

age

fat 1.6 fore and stern

remains yellow at margin of bill, no on back of  
occiput, with 2 callig

2031-08929 ♂ FW/BK ~~GR~~ GR/RD ♂

Bill length 9.5

Bill width 5.0

tail length 70

mid toe 19.5

molt no

broodpatch no

age

fat 1.6 fore

remains

Bill depth 6.0

wing length 68

Tarsus 20

hallux w/claw 16.0

skull

cloaca 7.0

wt escaped





Smith, J  
1989

# Banding Catalog

17

Sagehen Creek Field Station

19 April 1431-14510 ♂<sup>B</sup> FW/OR WH/PK

Bill length 9.5

Bill width 5.5

tail length 71

mid toe 18.5

molt no

broodpatch no

age

fat no

remarks

Bill depth 6.0

wing length 68

tarsus 20

hallux w/ claw 15.5

skull

clitaca 7.0

wt 21.0

1431-14511 ♂<sup>B</sup> FW/PK TL/OR

Bill length 9.5

Bill width 5.5

tail length 68

mid toe 20

molt no

broodpatch no

age

fat function some

remarks

Bill depth 6.0

wing length 66

tarsus 20

hallux w/ claw 16.0

skull

clitaca 8.0

wt 22.5





Smith, J  
1989

# Birdy Catalog

18

Sagehen Creek Field Station

19 April 2031-08930 ♂<sup>7</sup> FW/wh  $\frac{BL}{BK}$

Bill length 10  
Bill width 5.5  
tail length 70  
mid toe 19.5  
molt no  
brood patch no  
age  
fat stored  
remarks

Bill depth 6.  
wing length 66  
tarsus 20  
hallux w/claw 14.5  
Skull  
cloaca 7.0 swollen  
wt 22.0

1431-14512 ♂ FW/GR

RD/OR

territory just east of <sup>75900</sup> PK/FW BK/OR

Bill length 9.0  
Bill width 5.0  
tail length 71  
mid toe 19  
molt tail coverts  
brood patch no  
age  
fat much fat, some stored  
remarks

Bill depth 6.0  
wing length 69  
tarsus 18  
hallux w/claw  
Skull  
cloaca 9 swollen  
wt 22.5





Smith, J.

1989

# Banding Catalog

19

Sagehen Creek Field Sta

20 April

~~1431~~ - ~~14513~~ <sup>18</sup> 31 ♂

$\frac{YL}{RL}$   $\frac{WH}{FW}$   $\frac{W}{TB}$

N side of creek 1st ♂ E of meadow

Bill length 9.0

Bill depth 5.5

Bill width 5.0

wing length 65

tail length 66

tarsus 20

midtarsal 19.5

hallux w/ claw 16.0

molt tail coverts

skull

brood patch no

claw 7.0

age

wt 22.5

fat some sternal

remarks

2031-08931 ♂? GR/PK GR/FW

Bill length 8.5

Bill depth 5.5

Bill width 4.5

wing length 69

tail length 72

tarsus 20

midtarsal 19.0

hallux w/ claw 15.0

molt tail coverts

skull

brood patch

claw 8.0

age

wt 21.0

fat some sternal

remarks





Smith, J  
1989

# Banding Catalog

20

Sagehen Creek Field Station

20 April 203108932 ♂

$\frac{BK}{Wh}$

$\frac{RD}{FW}$

$\frac{GR}{FW}$

Bill length 10.0

Bill width 5.0

tail length 73

mid toe 20

molt no

broodpatch no

age

foot silt fine

remarks

Bill depth 6.0

wing length 70

tarsus 20

hallux w/ claw 16.0

skull

claw 8.0

wt 22.5

1431-14516 IB

~~2031-08933~~ ♀

$\frac{FW}{GR}$   $\frac{BL}{YL}$

mate of FW/LR RD/OR

Bill length 9.0

Bill width 4.0

tail length 66

mid toe 20.0

molt 5th left from outer  $\frac{2}{3}$  emarginate skull

broodpatch no

age

foot furcal stored some

remarks

Bill depth 5.5

wing length 67

tarsus 19

hallux w/ claw 15.

claw 4.0

wt 20.5

plus tail coverts  $\frac{1}{2}$  to  $\frac{2}{3}$  emarginate 4 on rt side none on left





June 19  
1989

# Birdy Catalog

21

Russell Lee Res. 2 mi NW Lafayette, Contra Costa Co. Cal 1300 ft  
27 April nestlings at mulberry bush, other nestly jumped out  
w/ calpers

Nestling 1 ~~1431-1457~~ ~~2031-0893~~ <sup>1431-1457</sup> on left BL/PRK on rt

Bill length 5.00

Bill length 3.78

Bill width 3.86

wing length 34.21

tail length 11.52

tarsus 19.38

mid toe 17.67

hallux w/ claw 10.53

molt 10's 1/10 out back well feathers

Skull

brood patch <sup>head and belly well</sup> feathers

cloaca

age

wt 18.5

fat much sternal and furcula

remarks

Mother <sup>BL/PRK OR/12</sup>  
~~Nestling 2~~ 2031-0893

Bill length 8.81

Bill length 5.90

Bill width 4.54

wing length ~~55.5~~ 55.71

tail length 57.04

tarsus 18.78

mid toe 16.82

hallux w/ claw 14.02

Molt no

Skull

brood patch yes

cloaca 4.53

age ad

wt 18.0g

fat no

remarks

nearly #4

1481 - 14520

BL/RD #4

BL 4.74

BW 3.20

SD 3.55

WL 27.81

TL 6.42

T 18.35

ndtve 16.50?

hatter under 12.30

wt 16.0g

10's just emerged



Smith, J.

# Banding Catalog

22

Russell Tree Res., 2 mi NW Lafayette, Contra Costa Co, Calif. 1300 ft

27 April

nesting ~~2031-08934~~ <sup>BL</sup> <sub>RD</sub> ♀ <sup>F10/BL</sup>

Bill length 4.27

Bill depth 3.90

Bill width 3.71

wing length 28.32

tail length 4.87

Tarsus 17.65

mid toe 18.55

huller w/c claw

most 10's just barely out at tip tail sheathed

Stomach 11.36

wood patch no

downy on back belly out 1/3

cloaca

age

wt 15.0 g

fat none on sternum

Remarks

2nd 1431-14518

<sup>BL</sup>/<sub>RD</sub>

BL 4.33

BD 3.68

BW 3.29

WL 25.96

TL 7.11

Tar 19.52

mid toe 18.06

huller w/c claw 11.69

10's just out, tail not fully perched

back 1/2 out belly 1/3 out

sternal fat

wt 15.0 g

3rd 1431-14519

<sup>BL</sup>/<sub>RD</sub>

BL 4.72

BW 3.71

BD 3.61

WL 29.08

TL 7.70

Tar 18.07

mid toe 16.77

huller w/c claw 11.43

wt 15.25





Smith J  
1989

# Birdy Catalog

23

Russell Inc Res. 2 mi NW Lafayette, Contra Costa Co, Calif 1300ft  
29 April nestlings of PK/FW BL/BK

1431-14521 PK/BK

Bill length 4.46

Bill depth 3.08

Bill width 3.30

wing length 24.68

tail length 4.07

Tarsus 17.17

mid toe 19.86

hallux w/ claw 11.75

fat sternal

wt 14.5

molt 1<sup>st</sup> just pin feather back post wing, downy head, belly, 1/6  
back patch down crest  
remarks

1431-14522 PK/BK

Bill length 4.05

Bill depth 3.39

Bill width 3.25

wing length 24.23

mid toe 16.66

Tarsus 17.06

fat sternal adf. w. adf.

hallux w/ claw 10.15

molt none visible

wt 13.5

remarks

2 May

2031-08935 ♂ RD/FW BL/PK

Bill length 8.87 Bill depth 5.51

Bill width 4.73 wing length 60.80

tail length 61.40 Tarsus 17.37

mid toe 17.62

hallux w/ claw 13.49

molt tail left on 3 outer feathers at base 5 feathers  
should

brood patch

cloaca 8.65 x 6.97 swollen

age

wt 18.54

fat much more sternal

remarks





uth, J  
1939

# Bandy Cooty

24

Russell Ice Res. 2 mi W W Lafayette, Contra Costa Co. Calif 1300 ft  
4 May 2031-08936 ♀ PK/FW BK/RD

Bill length 8.80  
Bill width 4.51  
tail length 54.19  
mid toe 19.05  
molt no  
brood patch yes  
age  
fat no  
remarks

Bill depth 5.11  
wing length 53.46  
Tarsus 18.34  
hallux w/ claw 13.57  
Molt  
clouea 4.60 x 3.92  
wt 18.5g

Nestling of pair S of FW/OR

Nestling 1-2031-8937 <sup>FW</sup> <sup>GR</sup> <sup>OR</sup>

Bill length 4.72  
Bill depth 3.37  
Bill width 4.23  
wing length 26.52  
Tail length 4.27  
Tarsus 16.79  
mid toe 19.65

hallux w/ claw 11.13

molt 3.68/4.25 back emerged, head downy, 1<sup>st</sup> act emerged  
fat stored 3.72/4.78 belly

remarks

wt 15.0g

Nestling 2-2031-8939 <sup>FW</sup> <sup>GR</sup> <sup>OR</sup>

~~Bill depth~~ 4.26  
3.44  
3.18  
26.17  
3.70  
17.43  
17.34

11.06

same molt

sterile

14.0g

21 May 1954 - 1st day

Left at 8:00 AM for the  
first day. The weather was  
clear and sunny. We  
went to the beach and  
swam. The water was  
very warm. We  
also had a picnic on the  
beach. The food was  
very good. We  
enjoyed the day very  
much.

22 May 1954 - 2nd day

Left at 8:00 AM for the  
second day. The weather was  
clear and sunny. We  
went to the beach and  
swam. The water was  
very warm. We  
also had a picnic on the  
beach. The food was  
very good. We  
enjoyed the day very  
much.

23 May 1954 - 3rd day

Left at 8:00 AM for the  
third day. The weather was  
clear and sunny. We  
went to the beach and  
swam. The water was  
very warm. We  
also had a picnic on the  
beach. The food was  
very good. We  
enjoyed the day very  
much.

24 May 1954 - 4th day

Left at 8:00 AM for the  
fourth day. The weather was  
clear and sunny. We  
went to the beach and  
swam. The water was  
very warm. We  
also had a picnic on the  
beach. The food was  
very good. We  
enjoyed the day very  
much.



Smith, J  
1989

# Banding Catalog

25

Russell J. Res. 2 mi NW Lafayette, Contra Costa Co., Calif 7300 ft  
4 May nestling 3-2031-08938  $\frac{1}{4}$  FW  $\frac{BK}{GR}$  nestling 4  $\frac{2031-08940}{\frac{1}{4}FW \frac{Wh}{GR}}$

Bill length 4.72 4.55

Bill depth 3.13 3.57

Bill width 4.04 3.57

wing length 27.08 25.58

tail length 3.52 2.50

tarsus 16.06 15.59

midfoot 20.05 20.28

hallux w/ claw 12.23 11.76

molt same as above same

fat sternal ad fat same

wt 14.5g 12.5g

remarks

2031-08941 ♀  $\frac{1}{4}$  FW PK/YC

Bill length 5.05

Bill depth 5.72

Bill width 4.40

wing length 55.43

tail length 52.81

tarsus 18.59 19.14

midfoot 17.44

hallux w/ claw 14.04

molt no

brood patch yes

skull.

claw 2.47 x 2.98

fat same as above

age

remarks

wt





Smith, D  
1989

# Banded Cuckoo

26

Russell Forks, 2 mi NW Lafayette, Contra Costa Co., Calif. 1300 ft

Y M age

2031-08942 ♂ <sup>Y</sup> <sup>FW</sup> <sup>BL</sup> <sup>FW</sup>

Bill length ~~9.27~~ 8.87 Bill <sup>depth</sup> ~~width~~ 5.64

Bill ~~depth~~ width 4.52

wing length 60.19

tail length 59.97

tarsus 19.62

mid toe 17.15

hallux w/ claw 14.06

molt no

skull

broodpatch no

claw 6.64 x 6.29

age

wt 20.0g

fat sternal

remarks

2031-08943 ♀ <sup>GR</sup> <sup>FW</sup> <sup>RP</sup> <sup>GR</sup>

Bill length 8.47

Bill depth 5.58

Bill width 4.79

wing length 55.35

tail length 54.89

tarsus 18.35

mid toe 16.89

hallux w/ claw 13.35

molt

skull

broodpatch yes

claw 2.14 x 3.45  
very w/ drawn

age

wt

fat sternal same

remarks





Smith, J

1989

## Banding Catalog

27

Russell Tree Res. 2 mi NW Lafayette, Contra Costa Co, Calif 1300 ft

5 May

2031-08944 ♂ <sup>FW/YL</sup> ~~FW/YL~~ <sup>GR/wh</sup>

Bill length 9.04

Bill width 4.54

tail length 61.33

mid toe 19.75

molt no

brood patch no

age

fat

remarks, tarsus l. to colored but toes dark and  
armored looking

Bill depth 5.82

wing length 60.81

tarsus 16.87

Hallux claw 13.64

Skull

claw 7.86 x 4.85

wt 20.25 g

Banded

Nestlings of	FW/BK	RA BL and	FW BK	GR BL	BK YL
2031-08945	YL RD	46 BK	GR BL		

Bill length

4.16

4.24

3.79

Bill depth

3.54

3.62

2.92

Bill width

3.14

3.39

3.08

wing length

27.24

24.96

22.11

tail length

3.80

2.85

1.13

tarsus

17.50

16.85 black

15.40

mid toe

19.37

19.04

18.00

Hallux claw

11.80

11.30

10.64

fat

multisternal at fore

same

less sternal at multisternal fore  
than others

wt

13.0 g

13.75

12.0 g

remarks

5 10's just out of sheath

no 10's out of sheath

molt

10's not out of pin, back 3.04/5.05, belly 3.35/4.05, 2's just out of 2  
downy heretarsus  
too small  
for black  
B only





Smith of  
1989

Banding Catalog

28

Sagehen Creek Field Station, 3 mi NW Hobart Mills, Nevada Co., Calif. 6300 ft

11 May 2031-08948 ♀ ad <sup>RD</sup>/FW <sup>WH</sup>/OR

Bill length 8.91

Bill width 4.72

tail length 66.39

mid toe 18.36

molt

Broodpatch yes edematous

age

skull

Bill depth 6.36

wing length 66.03

Tarsus 19.10

hallux w/ claw 14.00

fat some sternal at base

clacal protuber 4.45 x 0.96

remarks stomach seemed distended  
perhaps with an egg.

wt 25.0 g

2031-08949 ♀ ad <sup>BL</sup>/FW <sup>GR</sup>/OR

Bill length 8.62

Bill width 5.14

tail length 60.88

mid toe 17.65

molt

Broodpatch yes, edematous

age

skull

Bill depth 5.86

wing length 61.56

tarsus 19.10

hallux w/ claw 13.55

fat some sternal

clacal 5.55 x 1.91

wt 24.0 g

remarks tail worn

belly distended

16 May ~~Sagehen Creek~~ Russell Ave Res., 2 mi NW Lafayette, Contra Costa Co., Calif. 1300 ft

2031-08950 nestling of <sup>OK</sup>/FW see pg 90

2031-08951 nestling of <sup>OK</sup>/FW see pg 90





with, J  
1989

# Banding catalog

29

## Sagehen Creek Field Station

21 May 2031-08952 ♀ OR/YL  $\frac{RD}{FW}$  mate of BK/wh  $\frac{RD}{FW}$  ♂

Bill length 8.95

Bill depth 6.10 —

Bill width 4.63

wing length 62.29

tail length 67.55

tarsus 18.25

midt toe 21.90

hallux w/ claw 14.41

molt tail 4th pin outside on left 28nd molt patch yes, wrinkled  
age

skull ~~28~~

fat some fat

claw 4.31 x 2.20

wt 22.5g

remarks mid toe rt leg has  
strange "corn" at junction of nail  
with bone

2031-08953 ♀ YL/FW  $\frac{PK}{RD}$

Bill length 8.82

Bill depth 6.19

Bill width 4.65

wing length 62.05

tail length 66.58

tarsus 17.24

midt toe 19.92

hallux w/ claw 14.40

molt no

Brood patch yes, wrinkled Red

age

skull

fat much fat, some skeletal

claw 3.47 x 2.15

wt 22.0g

remarks





Smith, J  
1989

30

# Sagehen Creek

26 May

2031-08954 ♀

BL/BK wh/FW

Bill length 8.89

width 4.98

tail length 61.45

mid toe 18.81

no

age

fat set fine

~~remains~~ SWT 19.0g

on 2nd toe of left foot missing also missing on rt foot

length 5.44

wing length 60.89

tarsus 18.23

hallux w/ claw 13.14

brood patch yes

skull

claw 3.60 x 3.60

remarks nail

1 June

2031-08955 imm

BL/FW YL/BK

2031-08956 BL/FW RD/wh

Bill length 4.02

depth 3.27

width 3.52

wing length 21.16

tail length 1.02

tarsus 13.86

mid toe 17.69

hallux w/ claw 9.76

molt 10<sup>th</sup> spot emerged, 1.84/4.81, 1.83/1.09, BACK, Belly

age

fat

some remains of pure

claw

3.36 x 2.14

wt

11.50g

remarks

in nest of BL/FW GR/OR at BL, eyes shut

4.61

3.30

3.37

23.41

1.85

16.58

18.83

11.14

10<sup>th</sup> spot not at, Back 3.18, 5.96, head down, 2.43, 5.15, Belly

remains, pure, slender,

4.34 x 1.83, B

14.0g

eyes open





Smith, J  
1989

Birding Catalog

31

Sage

1 June

2031-08957 imm GR/PK +/FW  
Bill length 3.56 depth 2.71  
width 2.99 wing length 19.41  
tail length 1.00 tarsus 14.55  
mid toe 17.08 hallux w/claw 9.70  
molt 10's not out, back 1.03/5.08 belly 0.59/2.00

age  
fat fair, stern, belly - some  
cloaca 4.10 x 2.04 wt 12.0g

remarks ♀ singing, eyes open. Nestly of <sup>wh/</sup>FW  
Russell's Warbler.

2031-089... Warblers of Y/FW's

	58/40	59	Y/L	60	Y/L	61	Y/L
Bill length	4.49	3.82		4.59		4.51	
depth	3.74	3.72		3.71		3.86	
width	3.45	3.13		3.55		3.63	
wing length	31.14	25.96		28.90		30.64	
tail length	5.71	3.73		4.32		5.82	
tarsus	18.09	16.53		17.79		17.47	
mid toe	19.55	18.44		19.15		21.17	
hallux w/claw	12.31	11.36		12.94		13.04	
molt	10 3.45/21.51 3rd 04 6.22/20.5 08	3.70/17.42		5.05/21.65		5.60/21.46	

R. Heyman

age  
fat  
cloaca  
wt  
remarks  
fat fair, stern, belly - some  
cloaca 3.37 x 1.61  
wt 17.0g  
eyes open  
fat fair, stern, belly - some  
cloaca 4.29 x 1.79  
wt 14.0g  
eyes open - at north end  
fat fair, stern, belly - some  
cloaca 3.57 x 1.87  
wt 16.0g  
eyes open  
fat fair, stern, belly - some  
cloaca 2.79 x 1.79  
wt 17.0g  
eyes open, top of mandible bent





Smith, J  
1989

# Banding Catalog

32

Sagehen Creek field station

1 June 2031-08962 ad GR, nestly in <sup>FW</sup> <sup>R<sup>12</sup></sup> <sup>6R</sup> <sup>6R's</sup> nest  
part of transfer from B<sup>1</sup>/FW

Bill length 4.42

length 3.62

width 3.50

wing length 22.67

Tail length 2.20

tarsus 15.28

mid toe 17.66

hallux w claw 11.59

molt 1<sup>st</sup> not out, Back <sup>3.58</sup> 6.58, belly <sup>1.19</sup> 4.46

age

Cloaca 4.49 x 2.36

wt 15.0g

Remarks eyes open, but droopy

2031-08963 ♀ Y<sup>1</sup>/wh <sup>OR</sup> <sup>1</sup>/FW, banded 50g <sup>6R</sup> <sup>1</sup>/AK <sup>GR</sup> <sup>1</sup>/FW

Bill length 8.62

length 5.49

width 4.82

wing length 56.51

tail length 59.70

tarsus 17.79

mid toe ~~17.79~~ 20.33

hallux w claw 14.28

molt rt center <sup>5</sup>/<sub>6</sub> out

Good patch yes, wrinkled

age

Cloaca 4.33 x 2.63

wt 21.25

Remarks

fat - some fat





Smith, J  
1989

# Banding Catalog

33

Sagehen Creek Field Station, 3 mi. NW Hobart Mills, Nevada Co., Calif 95964  
2 June 2031-08964 ♂ YW OR/PK, came into YFW's  
territory when male got captured and ♀ was sitting  
Bill length 8.74 depth 6.18  
width 5.01 wing length 66.92  
tail length 69.40 tarsus 18.34  
middle toe 21.35 hallux w/ claw 14.86  
molt no brood patch no  
Cloaca 8.02 x 7.11 wt 22.25g  
remarks left nostril has something in it  
Mt pine fat

10 June 4 nestlings at unmarked pair

11 June 4 nestlings of YW OR/PK ♀

	2031-08965 PK OR/PK	2031-08966 BK OR/PK	YW OR/PK tarsus too	BL OR/EW
Bill length	4.18	4.35	4.40	4.39
depth	2.98	3.44	3.71	3.30
width	3.50	2.97	3.49	3.27
wing length	25.99	22.18	25.52	25.66
tail length	3.26	not out	2.80	2.31
tarsus	17.42	15.67	14.76	18.10
middle toe	19.50	17.80	19.56	18.75
hallux w/ claw	11.41	11.51	11.31	11.04
molt	3rd 10 6.24 2.47 back 5.26, back 6.89 early 2.99	0 0 1.64 11.06, 3.18, 4.37	2 1.35 1.55 13.74 4.58 4.19	0 2.41 1.99 13.78, 5.68, 4.60
fat	much fat, sternal belly	same	same	some plus some on
wt	16.50g	14.50g	16.0g	16.50
remarks	eye open, but blurry	same	same	same





Smith, J  
1939

Banding Caladeg

34

Russell Lake, 2mi NW Lafayette Contra Costa Co, Calif 1300ft  
30 June 2031-08968 young of year unknown parents. Band Trapped  
near mulberry/willow clump.

BK/FW  $\frac{wh}{OR}$

Bill length 8.75	depth 5.76
width 5.10	wing length 59.07
tail length 60.35	tarsus 18.53
midfoot 18.62	hallux w/claw 14.15
molt no	broodpatch ? see results
age fledgling	skull
fat much fat at second cloaca	3.53 x 7.93
wt 19.0g	remarks, belly bare, yellow at tail margin

8 July ~~Sagehen Creek Field Station~~ <sup>Nevada Co</sup> 3mi NW Hobart Mills, CA 6300ft  
Lt by FW #2031-08990 Capt Red | FW <sup>2031-</sup>08989 Red

Bill length	5.49	5.08
depth	4.45	3.71
width	4.32	4.16
wing length	35.56	33.19
tail length	10.60	5.86
tarsus	19.45	17.57
midfoot	19.89	21.54
hallux w/claw	13.45 $\frac{7.81}{3rd}$	12.99
molt	3rd $\frac{10}{24.82}$ back $\frac{7.87}{14.50}$ belly $\frac{8.97}{13.30}$	$\frac{3.55}{20.32}$ , $\frac{3.26}{10.04}$ , $\frac{3.56}{8.90}$
age	nestling	
fat	much fat at shoulders	some
cloaca	6.57 x 5.07	7.27 x 4.26
wt	16.50g	
remarks		





Smith, J

Bandy Catalog 35  
Russell Tree Res. 2 mi NW Lafayette, Contra Costa Co., Calif 1300 ft  
23 July 2031-08970 <sup>40</sup>/FW <sup>80</sup>/~~TL~~ od.

Bill length 7.40

width 4.90

tail length 50.01\*

mid toe 18.54

molt 1st 510's, 5th spin, only, <sup>left tail feathers left</sup> brood patch no

fat mod. fine

wt 21.05

depth 5.83

wing length 58.31

tarsus 17.00

hallux w/claw 15.56

claw 3.99 x 3.25

remarks

heads  
washed  
belly and  
back  
molt

2031-08971 fledgling FW/TL <sup>60</sup>/TL

Bill length 8.75

width 5.16

Tail length 16.05

mid toe 20.93

molt <sup>wing coverts</sup> Tail, belly, molt, back

fat much fine

wt 21.05

depth 5.72

wing length 61.52

tarsus 18.19

hallux w/claw

brood patch

claw 3.10 x 2.64

remarks

1 August

2031-08974 FW/BK <sup>80</sup>/BR

Bill length 8.41

width 4.88

tail length 61.04\*

mid toe 19.36

molt last 1<sup>st</sup> just in sheath, tail, wing coverts, ear coverts, head, back, belly

brood patch no

fat slt. fine

remarks caught in shrub patch said was

depth 5.74

wing length 61.88\*

tarsus 18.28

hallux w/claw 14.66

claw 2.68 x 2.68

wt 21.05





Smith 6/8  
1989

Birdy Central

36

Sage

5 Aug

FW/~~22~~ RD/X 2031-08969 fledgling of

reared by  
FW/OR  
FW  
BS

Bill length 4.96

depth 3.56

width 3.31

wing length 34.06

tail length  $\frac{0.71}{7.29}$

tarsus 17.90

mid toe 20.08

hallux w/claw 12.73

molt  $\frac{7.04}{22.241^0}$ ,  $\frac{8.60}{12.40}$ ,  $\frac{7.74}{13.24}$

fat much more

wt 17.50 gms

remarks

Young of WH/FW RD/PK ♂'s young

2031-08973 / WH

Bill length 4.58

depth 3.38

width 3.15

wing length 27.46

tail length  $\frac{0}{5.26}$

tarsus 18.88

mid toe 14.68

hallux w/claw 12.59

molt  $\frac{2.94}{17.32}$ ,  $\frac{4.22}{9.25}$ ,  $\frac{3.92}{7.44}$

fat much more

wt 14.50 gms

remarks

2031-08976 / WH

Bill length 4.53

depth 3.55

width 3.34

wing length 27.47

tail length 3.97

tarsus 14.83

mid toe 14.93

hallux w/claw 10.84

molt  $\frac{0}{14.93}$ ,  $\frac{1.77}{6.97}$

fat much more

wt 14.00 gms

remarks





Suth, J  
1999

# Banding Catalog

37

Russell

23 Aug 2031-08977 6R/FW 0R/BK ♀?

Bill length 8.35

Depth 5.44

width 5.08

wing length 56.97

Tail length 62.65

Tarsus 17.93

Middle toe 18.98

hallux w/ claw 13.29

closure

molt head,

wt 20.00

remarks

no fat





J. I. Smith

1988

Journal

Calif: Contra Costa Co.

Sagehen Creek Field Station

and Penny Pines, Nevada Co.

Point Reyes Field Station, Marin Co.

Alameda Co.

New Mexico: Zuni Indian Reservation





mtg, J

1938

Journal  
THE UNIVERSITY OF OKLAHOMA  
MUSEUM OF SCIENCE AND HISTORY

1

24 May

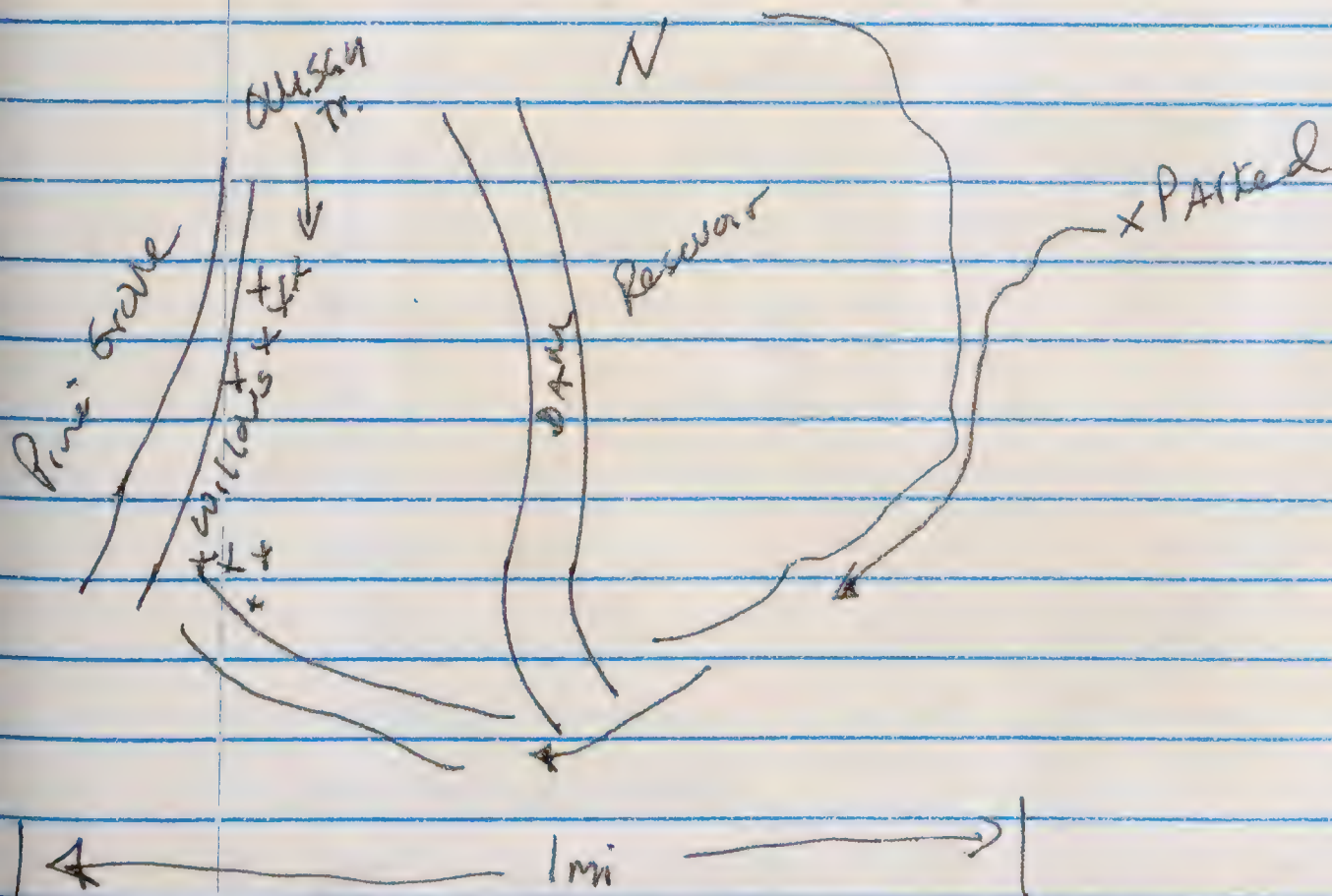
San Pablo Dam, Contra Costa Co., California  
8:17 am going out to San Pablo Dam to look  
for song sparrow nests

Route: ~~Grizzly Peak Blvd~~ to Wild Cat Canyon  
to San Pablo Dam Road.

Weather - Partly Cloudy ~60°F, Breezy  
mileage begin - 59858.6 to 59897.1

Route: Continued to Grizzly Peak to El  
Toyambre, but El Toyambre is closed 1/2 mile  
in. So went Grizzly Peak to South Peak  
Dr to Wildcat Canyon to Bear Creek Road  
Parked at Brion's Staging Park overlook  
to look for sparrows. Vegetation, area is  
grasses (1 1/2' high); mustard, - pine tree species  
planted thickly (less than 1' apart). To the south is  
the place I hear purple Finch

9:30 am set out, SW toward Reservoir, Air trees  
like the edge and Tulies are thick near the  
tail head of the reservoir







note, J  
1988

Journal  
THE UNIVERSITY OF OKLAHOMA  
MUSEUM OF SCIENCE AND HISTORY

2

San Pablo Dam, Contra Costa Co. California

24 May

I walked along the south end of the reservoir  
not too much likely song sparrow habitat  
Now head N from parking lot  
Bachans, French Broom, diadema line to N side  
more thickly covered than the S. Mayquid (10's)  
Went to ad RS Towles. Marked Flower  
left Jean Creek over to stage ground for Briones  
overlook, drove S along Bear Creek Road 42  
turned west on unnamed road to Oursan Tr. and  
Haupton trail. Many Willows line the draw above  
Oak and Pine, mustard and shrubs, French Broom  
75 yds from the end of the pavement NW on Oursan  
Tr. have seen 2 song sparrows. They are in the willows  
and tules, Bachans lining the creek on the S side of  
the pavement. Downy Wp and RWBB plentiful at 10:50 am.  
Saw fledgling song sparrow - yellow lip edges, bright red  
gape in conversation with calling adult. Heard at least  
100 4 song sparrows singing in 50 yds along the creek.  
I ventured out of the creek bank and found a  
huge bush of poison oak. Unfortunately, I didn't realize  
it until after I had crawled around in it! Found  
no nests, back in Oakland at 1:30 pm. Bright  
Sunny and breezy ~65°F.

Species List

Pied-billed Grebe	Briones Res.	1
Canada Geese	"	3
California Quail	Oak Woodland	8
Golden Eagle		1
Red-tailed Hawk		1
Anna's Hummingbird		2







with, 8

Journal

THE UNIVERSITY OF OKLAHOMA

MUSEUM OF SCIENCE AND HISTORY

3

1988

San Pablo Dam, Contra Costa Co., California

24 May

Turkey Vulture

2

Downy Woodpecker

2 ad, 1 juv

Black Phoebe

1

Ash-throated Flycatcher

1 sp. acct

Wren-tit

HO

Brown Creeper

HO

Cliff Swallow

~50

Chestnut-backed Chickadee

2

Rufous-sided Towhee

1

Purple Finch

HO

House Finch

~50

Brown Towhee

3

Dark-eyed Junco

2

Red-winged Blackbird

20

25 May

Dunsmuir Trail, San Pablo Dam, Contra Costa Co., California

8:53 am, weather overcast, breezy and cool 50°F

Route: Centerville, Grizzly Peak to South Park

Drive to Wildcat Canyon to Bear Creek Road.

Purpose - search for song sparrow nests from 0-4 ft  
 up usually associated with weeds and grasses  
 or twig fork (Robin Harrison).

Mileage 59897.1 - 59933.4

Walked along the creek running NE at Dunsmuir  
 Trail. Saw 5 song sparrows, calling in vegetation  
 along the banks. Kicked up a couple away from  
 the creek, I presume they were feeding on grass  
 seed or on the vetch. Found no nest. Flowed  
 through the tules but only found white-wash.  
 I think they nest in the willows not in tules.







Smith, J  
1933

# Journal

4

25 May

Oursan Trail, San Pablo Dam, Contra Costa (Calif.)  
but couldn't find any. I am going to  
take ~~San Pablo~~ <sup>San Pablo</sup> road over to the big  
reservoir to see if there are areas along  
streams less filled with vegetation, making  
nest finding easier. Back in Berkeley

12:30pm, didn't find much along San Pablo  
Dam Rd - very public and lots of filthy

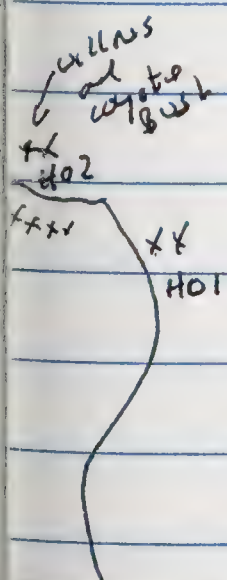
Oursan Trail, San Pablo Dam, Contra Costa Co., CALIF

6 June

7:54am, weather is overcast and cool. Purpose  
is to search in the willows for nests. Pan Williams  
thinks the nests are easier to see when looking  
up but well hidden from above.  
mileage 60112.8 to 60135.5

Appro Route - Grapple Creek to Golf Course Road to  
E on Shasta to Wildcat to Bear Creek Road ~.7 mile  
on Bear Creek to left turn past Horse Ranch to  
Oursan Trail. Overcast ~55°F drizzling lightly.

8:57am Raining quite hard came in from the west  
Birds very quiet only two singing down near  
sand bagged area of coyote brush at E end of creek.  
Since it is Raining I will drive around and do  
some exploring. North down Oursan trail .5 mile  
around a bend to the left come up on a prairie  
area with coyote brush on N facing slope.  
The road dead ends .1 mile further over  
2nd Rt off of (N or) Oursan Trail dead  
ends on E side of gully ~.15 mile.



Oursan Trail

← N





Smith, J

1988

# Journal

5

6 June

Quasar Trail, San Pablo Dam, Contra Costa Co., Calif.

.1 mile S of Bear Creek Ranch there is an entry way of SE side of road w. 4 explore. It runs parallel to what I presume is Bear Creek it is just North (50 yds) of the deep part of the creek. Oaks; Bachman are apparent. 10:35 AM Rain has stopped ~ 30 min ago. Sun is peeping out of clouds intermittently. I walked S along dirt road until I came to a fenced in facility (~ 1/2 mile). I went E around it and got to a Edmund Road which led to a trail 25 ft away<sup>(S)</sup> from S end of facility which led to the creek. I walked along the creek heard ~ 5 or 6 song sparrows. Numerous ~~For~~ RS Towhees (~ 20). There are willows lining the streambank it is very hard going because of this Rosebush-like prickly vine which can have 1/2" diameter. The creek is filthy with trash and debris I walked N along the streambed ~ 50 yds until it got too deep to walk in (1 1/2 - 2'). On the W side of the bank the stream often makes oxbows and I climbed amongst the ivy on the bank and scared up a RS Towhee I thought it might have been nesting but I could not locate a nest. I looked under the ivy in the dry leaf litter but nothing. The Towhee did a few cat calls (Wree). 11:21 In a willow on SW side of dirt road a nest!



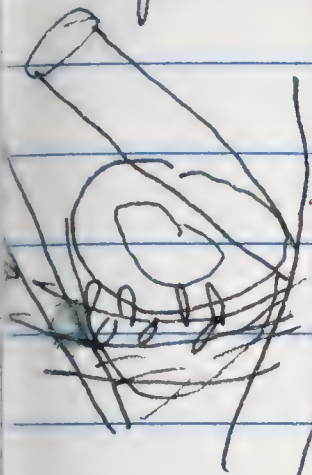


Smith, J  
1908

# Journal

6

6 June



~~Bear Creek Rd.~~ Bear Creek Rd. San Pablo Dam, Contra Costa Co. Calif  
750 yds SW of 2nd gate on the Bear Creek entrance  
20 ft up in a willow. Dead grasses at 1.0 m  
willow branches lay to outside 24" diameter  
flayed on opposite <sup>E</sup> side of road near  
cement floot. Heard a Black-headed Grosbeak  
possibly, heard Song Sparrows in distance  
but saw no activity at nest during 20 min obs.  
150 yds from Telephone pole 15090 Back in  
Berkeley 12:00 pm

7 June

.3 mile NE Bear Creek Road from San Pablo, Contra Costa Co. Calif.

7:24 am, Route (24) to Claremont Ave to College to  
Dwightway to Centennial (60145.2 to 60161.6)  
to Coff Corner Rd to Shasta to Wildcat Canyon to  
Bear Creek.

Overcast ~55°F, ground is very wet from hard  
rain yesterday. Chance of rain again today  
Climbed up to the nest found yesterday - it is  
empty, looks like a start. Only birds very  
evident while I was climbing were B. shrike  
(25) but it doesn't look like a T. + nest.  
too much dead grass not woven tightly.

.7 miles NE Bear Creek Rd from San Pablo, Contra Costa Co., Calif  
This is at the head of Oursan Canal, gate is  
locked today so I have to walk in. 8:20 am  
Sun is shining still rain is threatening. Red-wings  
calling "Conchoree" from tule patch just S (Song sps)





mtg, J  
1989

# Journal

7

7 June

7 miles NE on Bear Creek Road from Camino Pablo, Contra Costa Co. CA  
from gate. At the NE end of Oursan Draw found one adult, one juvenile and two unknown individuals flying low (2') off the ground near N bank in Tules and willows. Looked like juvenile was following around an adult. Flying very noisily. On Hampton trail flagged a nest (probably last year's) at NE end of Draw. At Oursan found an abandoned grass nest deep in the middle of thick Tules. The nest was ~ 2' off the ground hung around a fork in a small willow (diameter 2"). Nest was old and brown but tightly woven with grasses; approximately 4" across.

7 June

7 miles NE on Bear Creek Road from Camino Pablo, Contra Costa, Calif  
miles 60196.5 - 60224.9

weather - few clouds ~ 50F 6:30 am. Fair W.  
along for assistance in nest searching. Bought  
renewed hot coffee. Rattle Bonnet to Oxford  
to ~~of~~ Euclid to <sup>Central</sup> ~~South~~ Fork to Wildcat Canyon to  
Bear Creek. Nest found in Blackberries near  
North East end of draw. It is abandoned  
it has dead curled up leaves in it. It is  
~ 1 foot off ground is made of dried grass  
cup 4" diameter about 3" tall. Within  
3' of Baccharis and 10' of Poison Oak. 15'  
from water.





uth, J  
1988

# Journal

8

9 June

. 7 mile NE Bear Creek Rd on Camino Pato Rd, Contra Costa Co., Calif.  
♂(?) singing near drain pipe (flayed) holding territory  
and wing fluttering with ♀(?). This is just W of area  
with Tules where 1st went in. They are on  
N bank. Pair suggests mapping out pairs along  
the creek. territories will be small b/c of good  
cover. After observing for ~ 5 minutes the two individuals  
are flushed and a little chasing and both are singing  
9:11 60°F no singing along Hampton trail where they  
were singing on 7 June in willows along creek  
and in Tules. Very sunny now and no singing on SW  
side of Oursan Bridge trail. Ch. p note sounds  
like "Shweep" pair says sounds wimpy. Heard  
in in lightly wooded willows at SE corner of  
Oursan Trail w/ wood chips near main gate

slap for  
II  
254-3778

5 June 1988

Russell Tree Reservation, ~~Maricopa County~~ Contra Costa Co. CALIF 9:15 am 1300 ft  
Route - Wildcat Canyon to Bear Creek Road  
4 mi N on Bear Creek to Happy Valley Rd (3/4 mi E)  
just before hairpin turn it is on the left (N).  
met Frank Deterran (Manager). Showed  
me hillside with Baccharis and willows  
where Lidicker did study. Have heard song  
sparrows, Calif. Quail, Wrentits, RSTowhees  
all in hummingbirds. 226 acres. Scrub Jay  
TV's. 10:30 am. Have been observing  
male singing for ~ 1 hr I am sitting in the  
thistles by the side of the road he is calling





Smith, J

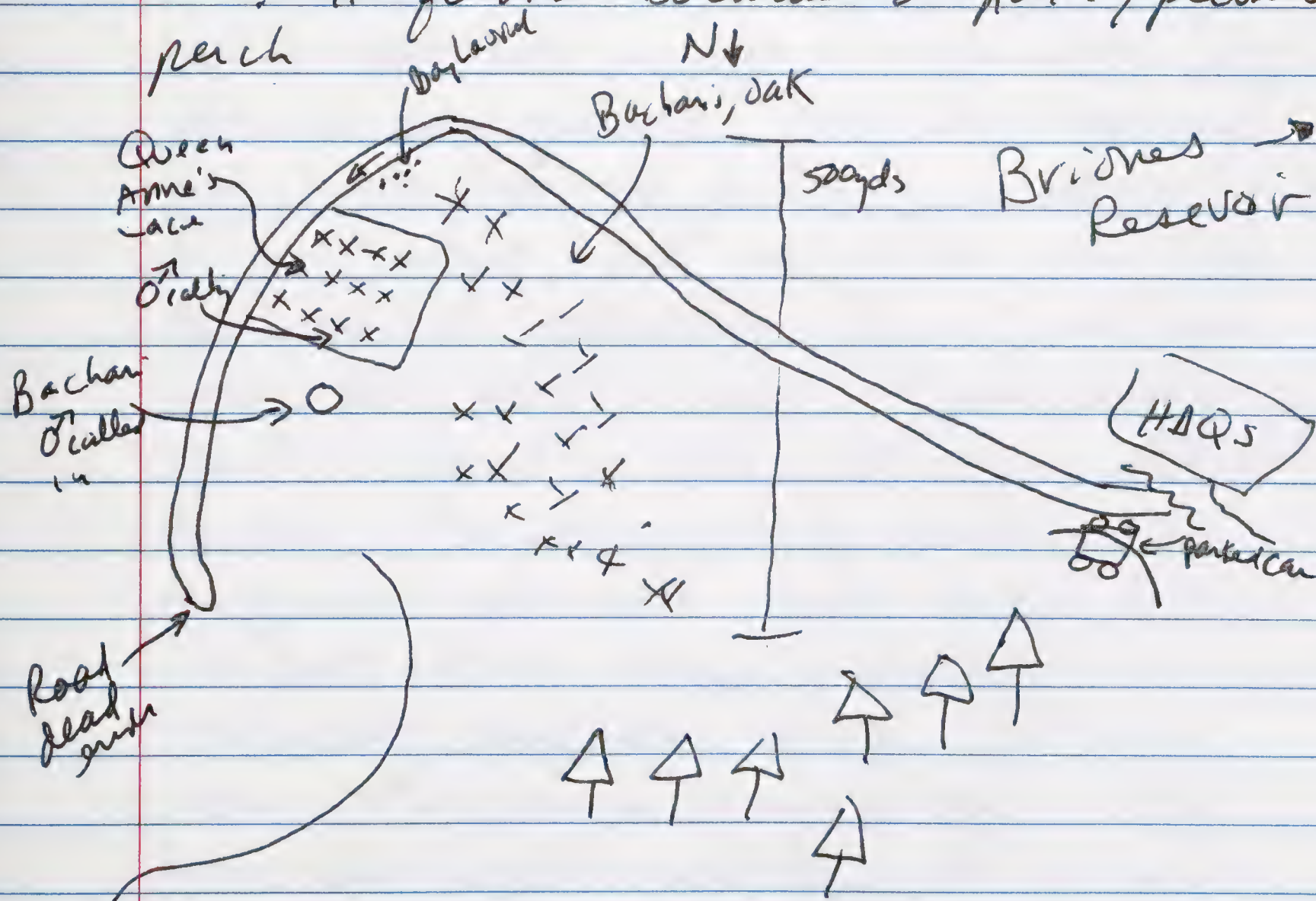
9

# Journal

15 June

Russell Tree Periwinkle, Contra Costa Co., CA 1300ft

from the north edge of a  $25m^2$  area of what look like Queen Anne's Lace. He is perched ~  $4\frac{1}{2}'$  off the ground in a dead piece of vegetation. I have been listening for the ♀'s call but no luck. ♂ has made at least 2 distinct call one with 2 intro notes and quite soft quiffy call after and one far more stident and loud w/ 4 intro notes w/ first 2 accelerating into closer spaced later 2. He flew into Bachans 8' north of previous perch.







with, J  
1998

# Journal

10

15 June

Russell Tree Reservation, Contra Costa Co., CA  
male moved back into Queen Anne's lace  
still on N edge of it. He called ~10-15 times  
in Bachan's and then moved back to lace.  
He can add a very loud "Blurrrrrrr" onto the  
end of his song. Flew back to Bachan's ~5  
feet in-lace. Second call ~~was~~ started on  
higher pitch (~1/3 higher). 10:49 am ♂ has stopped  
calling and is out of sight. I have seen 3 Bullock's  
orioles fly in the oaks on SW side of Ridge  
1 ♂ and 2 ♀ or immars. Saw a Natall's woodpecker  
at the observatory and down in canyon where dog  
Dbs on song sparrow. 10:54 male has song  
only 3 intro notes no full song. It seemed like  
he was about 10m NW of the Queen Anne's  
but have not spotted him. He just gave three  
new intro's 10:57. 10:58 ♂ gave clean call  
sounds like he is in Queen Anne's again, but can't  
see him, ♂ is singing 1 every 10 seconds. These  
are typical calls with 3 intro notes, clean  
strident but no Blurr on end. 11:00 am  
will start climb down to car. ~6 Robins  
were in this canyon primarily in oaks. Lots of  
Robin scolding not too much calling. ♂ SS was not  
in Queen Anne's lace rather 6' up in Bachan's  
Bush just N of lace, again. He is sitting on W edge of  
Bush on unprotected dead snag. Bay trees at  
S end of canyon on ridge near road are fruiting.





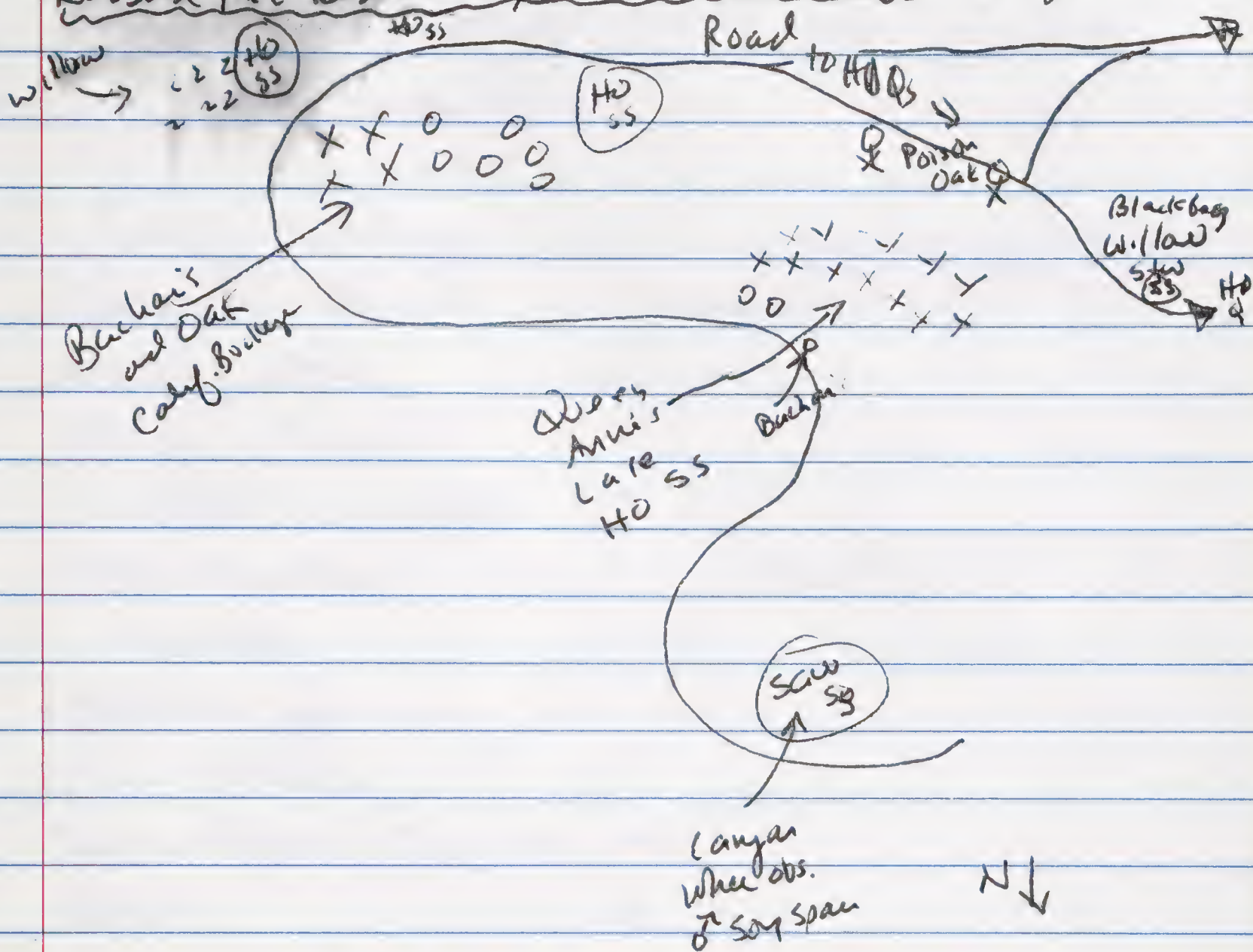
mtg, g

Journal  
2 mi NW Lafayette

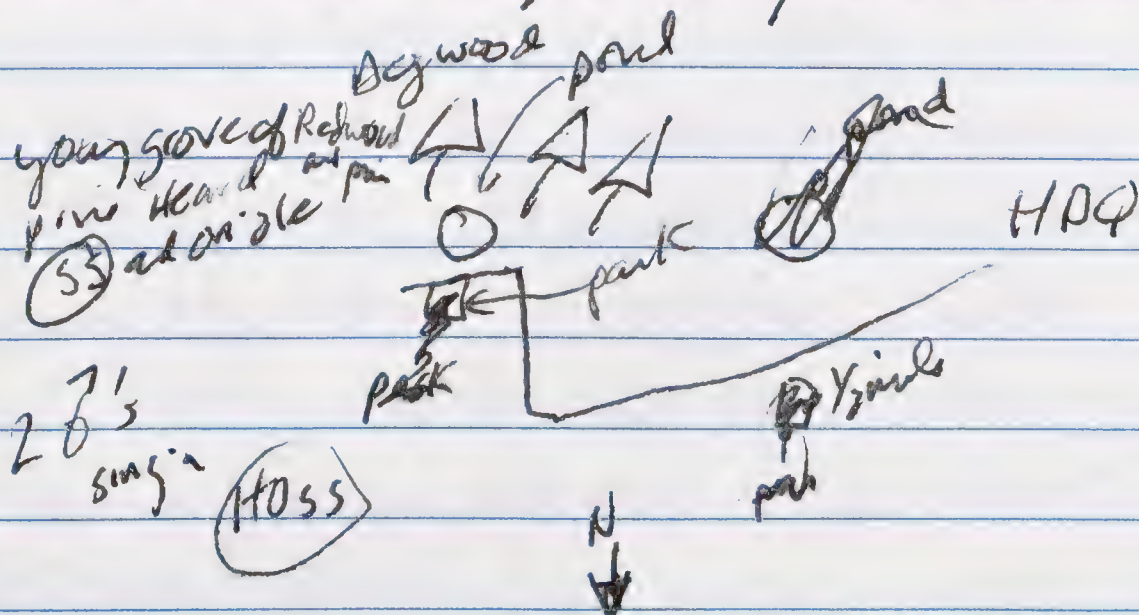
Russell Tree Reservoir, Contra Costa Co., CA 1300ft

11

15 Jan



At the Blackberry patch near the willows seemed to flush up an indiv out of Blackberry. ♂ still called from Willow. Hunted just briefly but no luck and no agitated adults. Oriole sex unknown near canyon possibly food.



15



Smith, J  
1938

Journal

12

Russell Tree Reserve, Contra Costa Co., Calif

15 June

Species List

Turkey Vultures	5	3 perched at observatory
California Quail	2	heard 2 flew over ridge ~12 more
Mourning Doves	3	
Allen's Humbird	2	
Nuttall's Woodpecker	2	
Tree Swallow	1	observatory
Scrub Jay	10-20	
Stellar's Jay	5	
Plain Titmouse	1	
Chickadee	10's	
Robin	20	
Rufous-s. Red Towhee	10	heard ~20 more
Brown Towhee	3	
Song Sparrow	5	5 heard more
Northern Oriole	<del>7</del>	20 <sup>+</sup> all sent unk.
House Finch	2	
Purple Finch	10	

17 June

574 FAIRMONT Oakland Contra Costa Co. Calif.

11:08 AM overcast, humid ~60°F leave for Saffron

mileage 60390.4 take 88 E toward Tahoe

Then highway 89 N toward Sierra Vista ~8 miles

Just over Sierra Co. live the left before station

garage at crest of hill go 1.8 miles W. ph: 916 -

587-4830 Joe Thornton

100  
101



2



with, J  
1438

# Journal

3.5 mi NW Hobart Mills

13

17 June

Sagehen Creek field station Sierra Co. Calif 6328  
Arrived at sagehen ~3:30 pm car was almost  
overheating as went over Donner Pass. The  
station is small and not so spectacular  
as Big Creek. It seems far more urban because  
everything and everyone are clustered around Joe's  
house. It is nice to have shower / Bathroom  
and kitchen facilities but really no decent  
place to camp. As Jeff predicted there was  
a Song Sparrow singing near the creek opposite  
from Joe's house. Asked Joe about Penny Pine  
area where Jeff camps. He said it is not  
allowed, I could get a ticket but he didn't  
care where I camped.

17 June

Penny Pine 1.5 mi S (1st right south of station) Nevada  
Co. California 6300 ft.

5:00 pm This is an area that was burned  
(44,000 acres) in 1960. Some of the pines are over  
30-40 feet but just as many are very height. Sage  
and a big leafy stunted cabbage like plant cover the  
earth. The soil is red and dusty - very dry.  
1 mi from entry of Penny Pine I pulled over and had  
a snack of bread, milk and cheese. Heard a Song Sparrow  
calling infrequently from the creek 100 yds to N.  
Warily vireo calling (sounds like "if you catch...  
will it squirt ya" he is ~10' up in a pine. Another  
is answering about 50 yds to N. Nuthatches probably





with, J  
1998

14

Penny Pass, Tahoe Natl Forest (1.5 mi S Squaw field Sta.) Nevada Co. Calif <sup>6300ft</sup>

17 Jun

red-breasted in call to the S ~100 yds.

In this bend in the River where Squirrels were spotted ♂ SS popped out of small willow ~10' x 10' foot bush. Heard "Chsip" possibly ♀. Then spotted a junco (?) making a wren-like "Wreen" "Wreen" sound.

Flagged the willow w/ Chartreuse on its S side. 10m NE from that willow is another overhanging the creek. Near its base overhanging the creek was a garter snake in what could be the entrance to a nest. I found much white wash and 2 downy feathers w/ 1' of the snake. Heard 2 indivs call from that bush as well. NO ♂ call just "Chsip" and "Wreen" calls.

6:21 SS have been quiet since I left the bush w/ the snake while I was searching thru that bush I heard a ♂ call and a lot of chipping. 60 yds W of last flag heard another ♂ singing, no sign of fledglings near Beaver dam where I saw a Beaver swimming in it of water his head was partially under and tail completely back was visible above H<sub>2</sub>O ~2 1/2' from head to tail tip. Heard high strident scree before I saw the beaver, don't know what made the noise. 7:16 pm much more singing than there was at 4:00 pm. I've tagged no other poss. nest over this one is 25 m from open gate down Penny





WTh, J.  
1998

# Journal

15

Pine Penney, Tahoe Natl Forest, 1.5 mi S of Sagehen Field Sta. Nevada Co. CA <sup>6300ft</sup>

17 Jun

pm dinner. Saw 7 indiv foraging and with food in mouth ~ 10m from the road in a pine<sup>(8')</sup> surrounded by willow. This indiv would fly to ground or dead stump and flit tail then fly into willows out of sight ~ 1' from dead stump. Heard pass begging calls at this time. Also graver are slung around a fork in a willow another 10m toward stream would investigate but want to disturb indivs this late. Retracing my tracks I discovered I drove down the Penney Pine road toward Sagehen creek 2 miles.

8:49 had dinner in the dining hall met Donna (SKing, long brown hair) and Britt (Plumb, grayer, long brown hair). Both are nice and Donna was helpful. Told me about Paul and his family studying Mountain Beavers.

Have been hearing an ascending hooting - poss. W. Screech Owl? SS still singing Owl(?) call is accelerating short hoots. I'm camping in the Volleyball court on the E end of camp and in the meadow. The owl's hoots sound a lot like Mado wings flapping as they come into roost.

## Species List

California Quail 6

Willow Sagehen 1♂, 1♀ 1 chick sp. acc

Red-shafted Flicker 3 sex unk.





mtg, J  
1988

# Journal

16

Sagehen Creek Field station (8mi N of junction of Hwy 89 & 30)

17 June

Sierra Co. Calif

Red-breasted Nuthatch

HO ~6

Wentley Vireo

6 pines

American Robin

25 very dark red

Western Tanager

20<sup>+</sup> Yurt (Forism)

Yellow Warbler

20<sup>+</sup>

Song Sparrow

10

Dark-eyed Junco

~10

Beaver

1

Deer

1

18 June

Sagehen Creek Field Station, Sierra Co., Calif. 6328 ft.

6:28 am cross over the creek at the House over the River

~100 yds of Dining Commons. Traveled W along the creek

500 yds. Seen 3 pairs of Song Sparrow in willows

within 10m from creek. Found a destroyed nest

~5' up in the fork of a willow tree. It had grass

mixed up woven in with a red bark. ~ 2-3" across.

and 3" deep. The squirrels here are grey, small

(1 1/2' head to tail) with prominent ears. They have white

stripes near lips going toward the eye. They make a

loud chattering call like a woodpecker but softer.

9:38 am I found a Song Sparrow nest! My

first, Ah! It's not a complete failure.

The nest had 2 young, fat well-developed

maybe 3 days old. Puff feathers not erupted.

The egg was warm with a dark spot about a cm





Journal

17

Sagehen Creek Field Station, Sierra Co., California 6328 ft

19 June  
in diameter. I had come upon what I believe is the male about 1 hr ago. He was chipping on a fallen log across the stream. I noticed he had an insect in his bill so I decided to seek the corner of a small pine and observe him. Shortly thereafter I noticed another SS come out of a willow thicket about 7m long and 3m wide. Both of these sparrows were flycatching over the creek. At one pt I observed the ♂(?) rub the wings off of what could have been a dragon fly by rubbing his bill against a dead log. The nest was found by watching the adults carry food to this willow clump. They were pretty sneaky. But it just came down to the fact that more often than not they would fly out of the willow and the flycatcher they would however spend a great deal of time chipping while they held food in their mouth. They would chip back and forth. Wilson's Warblers would fly into the willow and seemingly not be deterred by the sparrows. The nest was situated in a low fork (~1') of a willow that was 6' tall. The branches of the fork were 2" in diameter. The nest was surrounded by long dead grass (1') presumably as camouflage. As I approached this willow & kept the ♀(?) flew off when I was ~3' from nest







with, J

1988

18

8 June

Sagehen Creek Field Station, Sierra Co., California <sup>6308</sup>  
because of this behavior I knew I was close.  
and I poked around and sure enough there  
it was! ~~The nest~~ One of the nestlings raised  
its head as I poked aside some of the  
branches to get at the nest. They did not  
make any begging sound. The parents chirped  
the whole time I was in the vicinity.  
I flipped the nest, and it is my intention to  
collect them young way back to camp.  
as Ned suggested I can in this way  
stimulate re-nesting and also get tissue for  
elects. The nest was within 2' of the creek  
on the South side. I didn't stay to measure  
trip because I felt I had disturbed the family  
enough. Tonight after I collect them I will  
do more thorough inventory. 11:38 am  
birds are very quiet I walked to the W gate  
of the Sagehen station following the creek. After  
I found the sparrow nest moments later I found  
a Robin nest with 4 young close to fledging.  
The nest was in a small pine (16' tall)  
it <sup>the nest</sup> was about 4 feet off the ground. Made of  
grasses and mud. Nestlings feathers were almost  
fully emerged. It has warmed up considerably  
~65°F very sunny, no clouds. 5:52 pm  
found a nest of a Mountain Chickadee in a hollow  
pine tree hole is ~7' (up and)





1938

19

Sagehen Creek Field Station, Sierra Co., California 6328 ft

10 June

6:41 pm observed 2 adults feeding a fledgling wren in the grass. They would always set off for the fledgling from the same willow bush which was clumped up grass. The area where the presumed fledgling was hiding was in tall grass (1-1 1/2') and 6' from willow.

8:03 pm dinner of forest, chicken and Calathea. A long day; feels good to have found some sparrows. The area W of the W gate of the Station has numerous willow clumped sparrows but it is far too populated by people to offer good area for nest manipulation. Concentration in Penny Pine and near the station will be best.

### Species List

William Sapsucker	50♂ 2♀
Red-breasted Sapsucker	1♂
Northern Flicker	20♂
Hairy Woodpecker	20♂
Anna's Hummingbird	2♂ 1♀
Dusky Flycatcher?	1? → Townsend's Solitaire?
Hammond's Flycatcher (?)	2
Western Flycatcher	1
Mountain Chickadee	2 sp. acct
Red-breasted Nuthatch	40 3
American Robin	25
American Jay	1 ad 1 juv





with, J  
1988

# Journal

20

Sagehen Creek Field Station, Sierra Co., California <sup>6320 ft</sup>

8 June

Warble Vireo	20	
Yellow Warbler	10	
Wilson's Warbler	+ 50	
Yellow-rumped Warbler	2 ♂	
Song Sparrow	30	
Dark-eyed Junco	30	
Winter Wren	1 ♂	2 (juv or ♀)
Cassin's Finch	1 ♂	

Deer

1

Penny Pine 2 mi W of entrance which is 1.5 mi S of  
Sagehen Creek Field Station, Nevada Co., California <sup>6300 ft</sup>

19 June

7:00 AM went to West gate on Penny Pine road to Sagehen Creek 3 song sparrows in vicinity will try to get some recordings.

7:58 I just discovered that this SS pair is feeding a fledgling combus, without its tail it is still bigger than its parents! Spotted a mammal looking like ~~or~~ a woodchuck but with 4" tail and golden fur like a marmot.

9:37 AM ♀ song sparrow observed feeding a fledgling with a half grown tail, wing appeared fully feathered. Head had one downy feather sticking out but otherwise well-feathered. The fledgling was hunched down in some 12" grass the ♀ would fly to w/in 5' and would call "Bleep" and next it would





Smith, J

1930

21

19 June

Poang Pines, 1.5 mi S of Safford Station, Nevada Co., Calif. <sup>6300ft</sup>  
responded with a more lispy call. When ♀  
spotted me she gave a "sip or chsip." ♀  
would hop around ~~about~~ on a fallen log 1'  
off the ground away from us and the two would  
call back and forth. A male flew into a  
pinesh 15m to the W of the fledgling and sang.  
Fledgling would call periodically even if ♀  
was not nearby. 10:18 Found another pair  
feeding a fledgling. Same behavior of parent coming  
into ~5' radius of young giving "bleerrey" call with  
~~and~~ fledgling responding, much more softly.  
Found a nest 6" off the ground in the fork  
fork of a willow. The willow is 2 1/2' high.  
It is part of a long strip of willows along the SE  
bank of the creek. The strip is 15m long and 2m  
wide. I flagged the E most part and also  
flagged the tallest branch of the willow clump where  
the nest is in addition I flagged the willow  
bush just NW of the nest. To find the nest go  
into the middle of the clump where there is a bare  
area and look E look at the base of the flagged  
willow on the E aster edge. It is hard to view from  
east because other concealed from top than  
most, Hard to say how far down the creek  
but perhaps 1/2 mile<sup>W</sup> from gate. As I approached  
the nest tree I saw something moving away like the  
I had done at the other nest perhaps this ♀ is about





with, J  
1988

# Journal

22

19 June

Penny Prairie, 1.5 mi S Sagehen Creek Field station, Nevada Co, CA <sup>6300ft</sup>  
to lay. Nest was 15' from water's edge. 11:16  
500 yds west of nest I ran into E edge of  
the field station. Plots of tagged plants and  
50 yds beyond that The meadow where I  
set my tent. Area past that tent west 250 yds  
E of the meadow not too much willow  
lots of pinedale an Outhouse-like structure.  
I found with the sparrows at Penny Pine and the  
Ined station area I'll have plenty of sparrows!  
Can drive car .4 mile W past gate where  
parked car there is a 6' stretch of barbed  
wire bft 2 trees. The creek is near  
and the nest is w/in 150 yds W of that area.  
Or 2.5 miles<sup>W</sup> from main entrance to Penny Pine

## Species List

Gray Woodpecker	1 ♂ 1 unk sp. - acct
Northern Flicker	2 unk
Red-breasted Nuthatch	HO 3
Brewer's Blackbird	1 ♂ 1 ♀
Brown-headed Cowbird	3 ♀ 6 ♂
Mountain Chickadee	2
Wilson's Warbler	15 ♂ 2 ♀
American Robin	25
Song Sparrow	25
American Osprey	1 juv





with, J  
1989

# Journal

2 mi NW Lafayette

23

Russell Tree Reservation, Contra Costa Co., California 1300ft

June

6:48 am Overcast ~ 55°F Route: 580 to 24  
to San Pablo San Rd to Bear Creek to Happy Valley  
 mileage 60811.9

9:51 am No feeding of fledglings or nestlings. Some individuals have been quite vocal but no "chipping" or "Blereeping". The orioles, towhees and robins are all busy feeding fledglings. All the H. birds I think are nesting. I saw one well feathered bird of the year it was associating with another indiv I believe was the adult. These individuals were in the willow near the huge Hackberry patch on the W side of the road 250 yds from where I park in pine grove. Individual that I watched on 15 June is not calling in or around the area of the what I thought was Queen Anne's lace but is really Poison Hemlock! Walked down along the W edge of the Hemlock patch in the Buchan's heard a "Chsip" and a fledgling responded with "Blereep" from the hemlock. I think the hemlock provides great cover for fledglings but I don't believe the parents nest there.





with, J

1988

10 mi S of Olema

24

Point Reyes Bird Observatory, Marin Co., California

23 June

9:33 am, bright and clear warming ~60°F.  
route SBO w over San Rafael Bridge. Central  
San Rafael exit. 3rd street go left take it  
out of town bear right at San Francisco  
take to Dead end into Highway 1. Go S on  
1 ~15 minutes <sup>9 miles</sup>, immediately out of forest see Bolinas  
lagoon go to Right <sup>Olema Bolinas Rd.</sup> dead end go left then  
1/2 mile take Mesa Rd to Right for 4 miles West.  
ph. 868-0655

Geoffrey R. Geipel learn about their  
program. Song Sparrows will be fully  
grown wings and wt 15 days after fledging.  
Fat assessed by yellow or fulcrum. SKOWS  
by looking for windows under light. If tail  
not fully emerged then still probably fledgling.

or 1 mi W Hobart Mills 5840 ft

28 June

Prosser Creek 3.3 mi S of Sycamore Creek Field station Nevada  
7:24 pm Collecting with Jeff Groth. Heavy route <sup>Co. Calif.</sup>  
with 22 auxillary band have to get incredibly  
close. Make incision from base of sternum to vent  
do not go thru vent. Push skin back, try not to enter  
body wall. Skin back on both sides as far as you can  
Wait as long as possible to use saw dust because view is  
obscured. Work to get legs out, Disarticulate tibiotarsus  
from femur and then fix it to ~~the~~ skeleton. Cut connective tissue  
mand joint; don't worry about patella. Skin down to heel cut  
thru connective tissue do not cut bone. Now go to release





with 10

1988

# Journal

or 1 mi W of  
Nevada Co. Calif.  
5840 ft.

Prosser Creek 3.3 mi S of Sager Creek Field Station.

28 June

tail. Cut thru pygostyle. Do not ~~pull~~  
cut thru humerus pull it out and cut at  
radius and ulna. Now go to head gently work out  
ears. Release skin from eyes cut thru transparent  
membrane. Take skin down to base of bill. Flip tongue  
out, cut thru jaw. Clean muscle out of arms and tail  
leave some but not a lot of muscle around tail

29 June

Sager Creek Field Station, Sierra Co., Calif.

We awoke at 4:50 am (late). The alarm  
did not go off. In breakfast had toasted  
rice cakes and jam with Peet's Arabian  
Mocha (mocha...) 5:42 On the S side of  
the dining commons where Red crossbills  
caged on top of Jeff's brother's truck, wild  
Red crossbills coming in and land on truck  
singing and calling. ♂'s and ♀'s Jeff thinks it  
is a breeding aggregation of his type 2.

Song sparrows and Am. Robins calling near creek.

Walking along a steep N bank of Prosser  
creek S of the station a couple miles  
I flushed a Townsend's Solitaire. It was  
sitting on 4 eggs. The nest was under the  
edge of a foundation on the ground. Woven  
with grasses about 4" wide. The eggs were  
bigger than sparrow eggs but similar color and  
pattern. Grey blue with rust flecks. I picked

old nest





with, J

1988

# Journal

26

1 mi W Hobart Hills  
6000 ft  
5840

Prosser Creek 3.3 mi S of Sacramento station, Nevada Co., CA

29 June

one of the eggs and crushed it, blood drop formed at the crack. Found many SS but discovered you have to get quite close to get the shot. Within 5'! I got one sparrow this morning out of 7 shots! It works well to leave tape player out in grass and seek cover next to a preferred perch and wait for the right moment. Found an SS nest in small bush ~3' high (not willow leaves too large (fat)). Nest was at base of bush no more than 3" off ground about 3 1/2" across worn with dead grass. ♂ was disturbed by playback and would call in response. While I was hunting the ♂ I flushed the female and lo! there were 2 very young chicks (~1 or 2 days; no feathers except a wee bit of fluff on their heads) I collected the ♂ but not the ♀. Nest was ~2' from row of willows that were 3' from the N edge of Prosser Creek. Sandy-rocky substrate nest pretty well hidden from above. Earlier today (before noon) heard ♂ give an incomplete call probably signifying he is frustrated breeding for the reason. The birds were quite responsive to playback in afternoon possibly even more than in early AM.

3.3m/s  
saxt. est.



Sta, J

1988

# Journal

27

6100ft

2 July

Alder Creek 4 mi W of Hobart Mills, Nevada Co, Calif  
9:50 am Jeff and I drove S from station past  
Proner Creek to Alder Creek Rd. Went  
west on Alder Creek Road for 3 mi until  
drifted off to Rt with bent street sign  
indicating Alder Creek then we drove NW about  
1 mi and hunted along the creek. Not too many  
sparrows. Too much alder not enough  
willow plenty of Fox Sparrows. Jeff shot  
a male and female SS. Just night I checked  
the nest I found in Penny Pines, it was still  
empty (that nest was found 17 June). Heard  
individual give "Sip sip" as I stood in willow  
thicket so maybe they re-nested elsewhere  
after I found them on the 19th. I collected  
the nest

29 July

Sagehen Creek Field Station, Sierra Co, California 6328ft  
4:27 pm arrived at station 3:40 left Berkeley  
about 11:30 am. Took Chris' car lent  
Nina & Wang so she could go car shopping.  
Chris and I drove S on I-80 until South  
Tahoe exit stopped at Safeway for some  
Canned Beef,  $\frac{1}{2}$ - $\frac{1}{2}$  and Mahi-Mahi.  
Donna invited us to a Barbecue and  
wiffle ball game tonight. It is a hot  
day (~85°F) with large cumulus  
clouds. Chris and I will walk S  
along Sagehen from our tent site on W end





mtb, J  
1988

# Journal

28

63284

29 July

Sagehen Creek Field Station, Sevier Co., California  
of meadow. This will bring us into the  
Pinyon Pines. The purpose of the trip is to  
see what stage the Sage Sparrow nesting  
cycle is in. There is a Wilson's Warbler  
"sipping" at us in the willows just back  
the west end of the meadow. Donna and  
Joe are almost finished with the new cabin  
SE of Dining Hall. I decided to stay in  
meadow over tent-frame cabin because it  
was so cold at night when I was here with  
Jeff. Chris bought this enormous red air-mattress  
I'll see how it works. Found a nest in  
crotch of a willow ~ 4 1/2' off ground it is  
empty ~ 25' from S side of Sagehen Creek  
nest dimensions 3 1/2" x 3" x 2 1/2". 5:16 pm  
things are very quiet. We walked S along  
Sagehen nearby the willows have seen 2 ♂'s(?)  
who chirped at us and then vanished no  
calling or young ones seen or heard. 2 dark-eyed  
juncos are chipping in the ~~tree~~ pine tree looks like  
one is following mother. 6:02 100 yds E on  
Sagehen was watching a suspected juv calling  
"bleeep" for ~ 3 min an adult flew into a pine tree  
at about 3' off ground 7' S of juvenile it flew to  
same branch as juvenile and fed it then hopped up to  
higher branch. Chris says there is 3rd indio  
not as puffy as juv perhaps 2nd adult they are all





th, 8  
1288

# Journal

29

29 July

Sagehen Creek Field Sta. Sierra Co. California 6329ft  
Three sitting in same tree on 3 diff branches  
about 10" apart each branch. low < 3' off  
ground in Pine tree (Ponderosa?). No calling  
only chirping was heard and feeding from  
juveniles.

30 July

Penny Pine 1.5 mi. S of Sagehen Creek Field station Nevada Co, Calif 6300ft.  
set up 3 30m nets 9:22am caught  
an individual which I will band and measure  
it is ~ 65°F sunny with lots of white clouds.

- FWS Band # 1431-14501 on left leg (1B f.t. weel)
- Bill length 10mm (measurements made with plastic ruler)
- Bill depth 6.5 mm
- Wing length 64 mm
- Tail length 64 mm, very worn feathers mainly just shaft
- Tarsus 20 mm
- Middle toe 17 mm
- Molt ~~some~~ heavy back molt, tail very worn
- Broad Patch yes
- sex prob female
- age adult?
- Fat ran away

She beat her head against the wires it was feather  
bare and hood.

- End of 143-1401

Have seen dark-eyed juncos, Hermit warblers (26), orange-  
crowned warblers, Mountain chickadees, Red-shafted

sp. Acet.





St. J

1930

Journal

30

Perry Pines, 1.5 mi S of Sawyer Creek Field Sta. Nevada Co. Calif. <sup>6300ft</sup>

30 July

flocks. Have heard no SS calling only "jippy"  
It rained a little bit this morning about  
5:15 am. We got up 6:13 only heard jays calling  
no Robins which is in sharp contrast to the  
morning chorus 3 weeks ago when the Robins  
would wake me up at 5:15 am like clockwork.  
Saw 1 jay this morning it rattled and flew  
E down to stream. Belted Kingfisher flew over  
very hi (500 yds) it called as it flew over  
the creek flying north.

FWS Band # 1431-14502 left leg (1B)

Bill length - 9 mm

Bill depth - 7 mm

Wing length - 65 mm

tail length - 67 mm - moderately worn

tarsus - 18 mm

middle toe - 17 mm

molt - no

brood patch - yes

sex - female

age

fat - no





Smith, J

1988

Journal

31

Penny Pine, 1.5 mi S of Sayce Creek field station, Nevada Co. Calif 6300 ft

30 July

FWS Band # 1431-14503 (1B)

Bill length - 9 mm yellow lips

Bill depth 6.5 mm

wing length 62 mm

tail length 66 mm

tarsus 20 mm

middle toe 18 mm

molt - right side #4 about halfway in

brood patch - yes

other side complete

sex - female

age - juvenile

fat - none

Strange yellow protuberance (~~3 mm~~) from  
uropigial gland (3 mm long 2 mm wide)

All three so far caught in same net  
plus one <sup>mountain</sup> chickadee.





Smith, J

1988

# Journal

32

Penny Pine, 1.5 mi S of Sawyer Field Station, 6355 ft. Nevada Co. Calif.

30 July

FWS Band # 1431-14504 (1B)

Bill length 8.5 mm

Bill depth 6 mm

Wing length 63 mm

tail length - 1 tail feather ~~note~~ 54 mm

tarsus + 20 mm

middle toe - 18 mm

molt - all over, secondary coverts half emerged

brood patch - no

tail feathers 1 cm

sex - hard to say

age - juvenile - yellow lips

fat - some fat

protuberance from uropigial gland  
(2.5 mm x 1.5 mm)

October

Pt. Reyes Bird Observatory, 10 mi S of Olema Marin Co. California

Route - San Rafael Bridge to N 101, Lucas Valley Rd  
to Nicosia then Highway 1 south to Bolinas Lagoon.

8:22 am ~55° Clear skies with light fog.

Drove out to PRBO to take blood samples for DNA  
fingerprinting.





ith, J

1988

# Journal

33

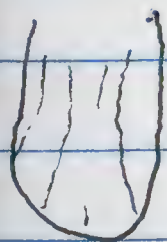
57 Fairmount Ave., Oakland, ~~Calif.~~ Alameda Co. Calif

14 December weather: clear skies, light wind ~ 55-60°C  
purpose: Driving to Zuni Indian Reservation  
New Mexico for Christmas Bird Count.  
John Trochet is traveling with me. We  
will meet Bernice, Susan and Carla C.  
on Friday in Zuni.

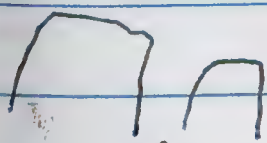
Time 3:00pm left at 3:51pm

Route 580 E to I-5 to 205-I toward  
Hayward and Stockton then to E-120 to Montecito  
and Sonoma, then 99-5 to Fresno then to  
Bakersfield 53 to Bakersfield and I-405 after that

15 Dec 5-666 to E 61 (or New Mexico 63) to Zuni  
on south side of road <sup>(E 61)</sup> large flock (~20)  
Mountain Bluebirds. Northern ~~owls~~ very  
common along road side with distinct wedge  
tail. Saw one rarer mostly left remige.

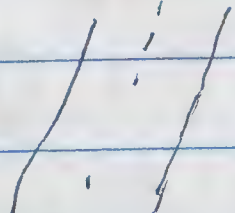


Approx 10 min E on 61 see Zuni Buttes in the  
distance. Homes many Zuni shrines, and religious  
offerings. 15-20 Indian House Finch flocks  
along the roadside, very pale sandy brown

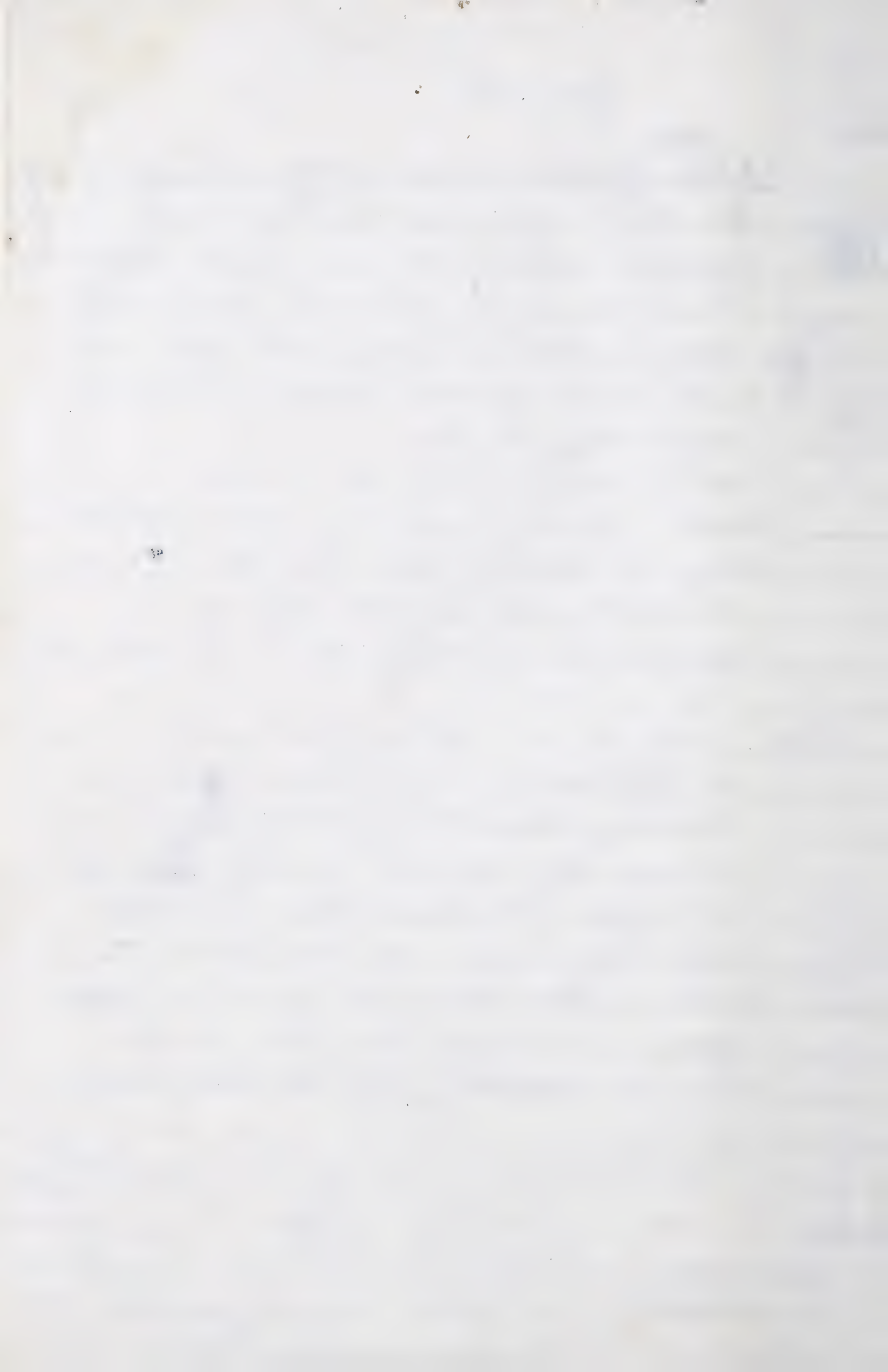


Buttes

3-4 miles off  
in distance to  
E.



retreats  
in Mesas  
for Navahoes  
and Zunis  
dwell on  
top from 1600's





with, J  
1958

# Journal

34

Zuni Indian Reservation, McKinley Co., New Mexico

15 Dec

stone monuments on S mesa are the son and daughter of Zuni chief who were sacrificed by walking into the water on the top of the mesa. As they walked in the water receded.

Power line marks state boundary.

Vegetation is juniper primarily and sage with some piñon. Reservation is  $1,000 \text{ mi}^2$

This represents Zuni homeland, they and Hopi were not removed from tribal lands.

Soil is very red, reminiscent of Oklahoma in Black Mesa Country. We looked for pronghorn when we turned S off I-40 on 666-S but none.

John says pale rump should be visible in the clearings over when traveling 55 mph. Ferruginous Hawk distinct white tail band with ferruginous red.

Under wing coverts speckled Black all over not just patagial as in RT, held wings in a dihedral long tapered wings not rounded like RT.

White-tailed prairie dog mounds.

In the riparian parcel that is my responsibility we saw numerous Song Sparrows along the banks of the impoundments in dead grass cover as well as in dry stream beds lined with willows and cattails.

They were giving the "Simp" call note.

On SW corner of my plot found tall trees (~Oak) near to budding. These trees had

~30 Pine Siskin with fewer American Goldfinch





with, J  
1988

# Journal

Zuni Indian Reservation, McKinley Co. New Mexico <sup>35</sup>

15 December

sitting at the very tip-top. They were perched close together (21' apart) and would fly off in flocks together giving a "unweep" call.

~~birds~~

## Species List

Pontail (30) at dam

Bufflehead (50)

Green-winged Teal (~40)

Pied-billed Grebe (2)

Lesser Grebe (2)

Golden Eagle (1 imm) sp. acct.

Ferruginous Hawk (1) sewage ponds

Prairie Falcon (17)(14)

Amer. Coot (100's)

Bald Eagle (2) at dam

Red-tailed Ducks (100)

Ring-necked  
duck  
sewage ponds

15 Dec

start up 100's

Pink-billed Grebe

Ferruginous Hawk (1)

Raven

Prairie Falcon (2)

5 Sp

WCS

Ring-necked (200)

Pied-billed (2)

Amer. Coot (200)

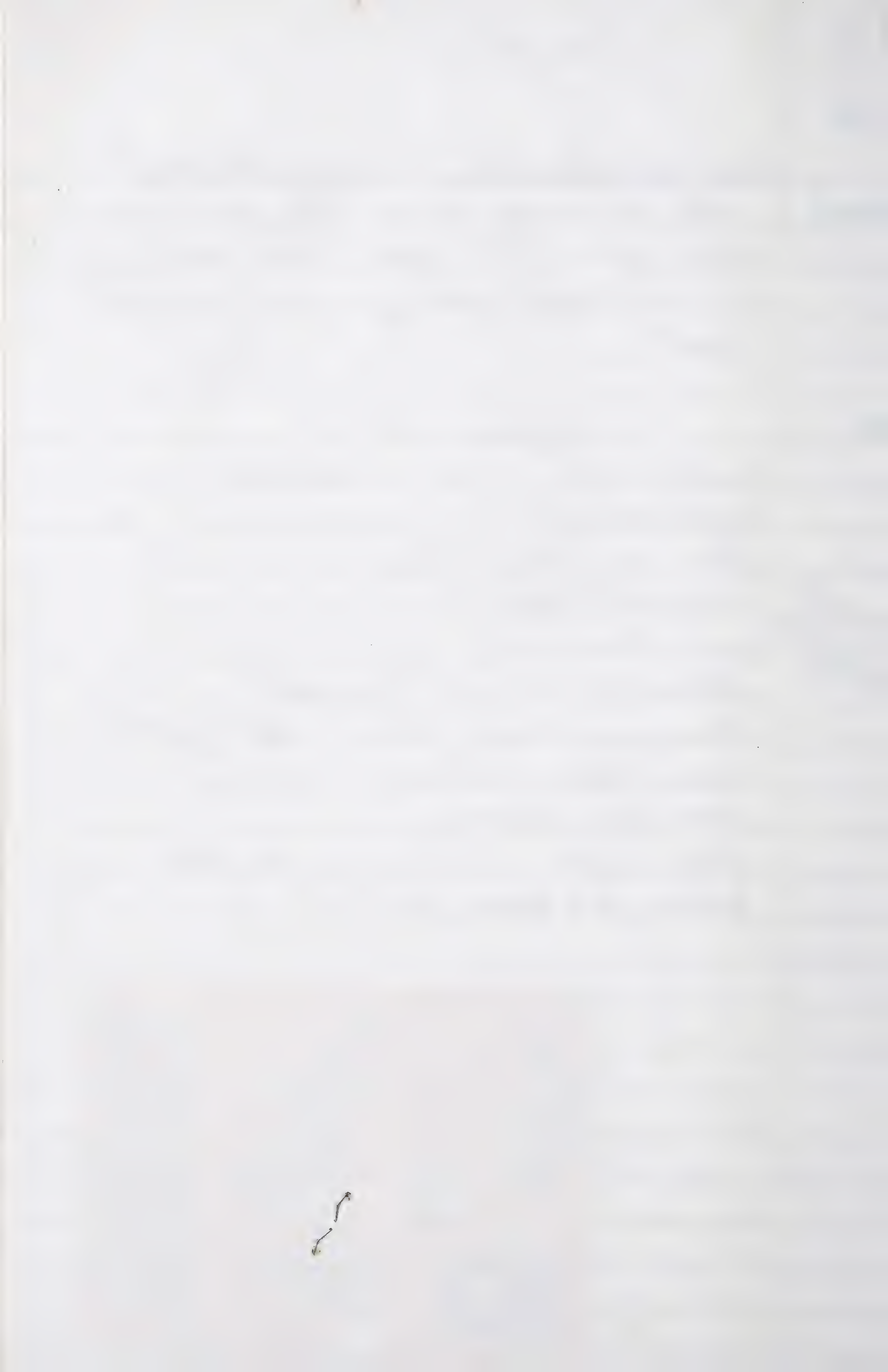
RWB

Yellow-headed (~12)

Great-tailed Grackle (20)

Golden Eagle (1 imm)

Golden Eagle (1 imm)





Smith, J  
1934

# Journal

6400ft.

36

Zuni Indian Reservation, McKinley Co. New Mexico

16 December Awoke 6:40 am Breakfast of Ham and Peet's Bantamda. Al and E.J. Charles Place is ~10 miles N of Zuni toward Gallup. Two children Ronald and Lee and a new one expected soon.

First stop this AM ~ 8:00 am was for Sage Sparrows (Sage flats along Rio Pescado) a drainage area actually outside of cirque, no oak tree again (this)  
2nd stop was canyon below the dam had juniper and much sage. Smelled wonderful. Weather was crisp (~20-30°F) light wind from East but upper atmosphere blowing to East from West. Canyon is basalt rock with cattail marsh at the bottom we heard and saw many rock dwelling sparrows, wrens and juncos. Tall cottonwoods line the edge of marsh with also many Russian Olive (~15'). South on old 36 (Reservation 8) to pie mesa. Part cloudy 11:00 am Ran into Al S. coming up out of the Mellon canyon he had seen a yellow-bellied Sapsucker & N. Shrike. We walked back down the canyon with him to see if we could see the Sapsucker. The canyon was sandstone with Gray Fir. Many snake and possum ant hatches. Heard solitaire (sp. acct.) and saw it too.





th, J  
1988

West Branch  
Main of Testina

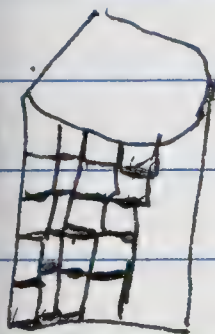
6400ft

37

Zuni Indian Reservations, McKinley Co. New Mexico

December

We ate lunch 1:30pm at top of canyon after the steep climb back up. We left Al before making it all the way down to his car. I made a turkey pastami, sprouts, havarti cheese with gey poyun mustard sandwich. John and I shared lunch so also had turkey with swiss cheese in Pita bread. Carrot sticks, and grapefruit juice too. After lunch we headed to the SE corner of which a high sandy plateau of Pinyon and Juniper. With algarate juniper bark looks like alligator skin. This area was very quiet, hardly any sounds unless John "pished" or did a pygmy owl call. Then we would attract numerous (20-30) pygmy nuthatches a few white-breasted (2-3) and numerous juncos (50). Also picked up a willow warbler in a tall sage fin it was 10' below the top on the main trunk (sp. acct). We then drove to get back to town and spotted a Northern Shrike sitting in the top of an 8-10' juniper (sp. acct).



alligator bark

Testina





J. I. Smith

1989

Journal

Calif: Russell, Tree Farm, Contra Costa Co.

Guerneville, Sonoma Co.

Big Creek Reserve, Monterey Co.

Santa Cruz Island, Santa Barbara Co.

Sagehen Creek Field Station, Nevada Co.

Arizona: Pima, Cochise, and Yuma Cos.

Calif: Imperial Co.





with, J  
1989

# Journal

2 mi NW Lafayette

Russell Tree Farm / Contra Costa Co. Calif. 1300 ft

4 Feb

8:45 am, T = 40°F, skies clear. Frost on grass. Sun shining.

Purpose - out to check up on Song Sparrow breeding progress.

Found 6 TV's sunning themselves in large trees near where car is parked. They had their backs to the sun with wings outstretched. One other TV separated ~200 yds to SW with on fence post also opened wing when the larger group did!

I have heard no Song Sparrow singing. The Golden-crowns are feeding in large flocks (~15 indivs) always near a brush pile. Two Red-tails are calling "he-rah"! Found one Song Sparrow by peeking at the Mulberry Bush. It did a few "Chimps" and then went about preening and hopping in leaf litter.

To the WSA along trail (on top of W ridge) from mulberry tree about 200 yds. I heard a "Chimp" and saw a possible one. They seem to be in





ith, J  
1989

# Journal

2 mi NW Lafayette

39

4 Feb

Russell Tree Farm, Contra Costa Co., Calif. 1300 ft  
in the Baccharis along the W side of  
hill. Also saw 2 flickers and 2  
scrub jays sitting on fence posts lining  
the top of the ridge. The wind has  
picked up from the SW ~ 10-20 mph

Along the ridge to the NW is a grove  
of live oak. Descending to the E from  
that ridge is a gully lined with  
Baccharis ~ 50 yds long to the N side of  
trail at the ESE tip is tall Baccharis  
Saw two song sparrows and gave "sing"  
call, mixed with several Golden-crowned  
sparrows.

Along E ridge 40 yds E of water hole  
saw and heard song sparrows in Baccharis ~ 20'  
off the ground near (< 4') from trail on N  
side of road. Another answered "Chirp"  
call off 100 yds to NE. 40 yds to N  
along the road found a song sparrow not  
calling but hopping in sunspot over ground  
(16") in a dead patch of poison hemlock. It  
hid in fallen branches, while could hear  
the one still calling from the last spot.

On the way back to the car from E end of





with J  
1939

2 mi NW Lafayette

48

~~37~~

4 Feb

~~Russell Tree Farm~~ Contra Costa Co. Calif. 1300 ft  
of canyon. Saw Song Sparrow singing  
itself in a Beech on N side of road  
~ 10 feet from trail. This spot is along  
S end of trail 20 yds W of where the road  
turns N to the Waterhole Ridge. Sharp-shinned  
flew by to the SW to W ridge out of sight.  
The pond just SW of party area has  
a pile of wood on S end, saw and heard  
a Song Sparrow singing on that wood pile  
and one was calling well to the SW.

I drove E along paved road until  
I could go no more. Then was that machine  
"Bleeting" where I parked. I walked 50 yds  
E along muddy road into Redwood  
grove. Saw Hermit Thrush and ~ 5 Fox  
Sparrows, numerous juncos and Brown Towhees  
but no Song Sparrow.

10 Feb

8:34 AM very foggy ~ 100 yds visibility  
cold ~ 45°. It was sunny in Berkeley  
But cloud Bank here. Came out to  
try some netting. 9:16 am still dense  
fog blankets the area. I have set  
2 nets: one at the mulberry bush  
on the S side near the road. The  
other at the N bench corner 75 yds





with, J  
1989

# Journal

2 mi NW Lafayette

41

Russell Tree Farm, Contra Costa Co., Calif. 1300 ft.

10 Feb

E of the W ridge with the live oaks.  
3rd week I saw Song Sparrows in  
that area. This morning I "pished" at  
the Mulberry bush and I saw 2 Song Sparrows  
pop out of the the dead hemlock on  
the SW border ~ 10 yds N of road.  
Yesterday, Tom Smith lent me ~ 6 nets, one  
brand new and 5 tried and true. I am  
using my 2 aluminum pole nets for the  
first time so far so good. It was then  
very quiet, only birds heard were  
Scrub jays and Rufous-sided Towhees.  
Saw a large flock of Golden-crowned Sparrows  
in dead hemlock ~ 60 yds S on Road from  
Mulberry bush. There must have been at  
least 20 individuals in ~ 3m<sup>2</sup> hemlock.  
They flushed from the ground onto the bushes  
when I got ~ 15 yds from them. Red-tail  
called "Hee RATH" from the cedar grove  
where I park my car. Robin is also  
singing in the same area. There is ice  
in the cement slab near the N edge of Mulberry  
bush. 9:41 am at N most end of live oak  
ridge TV is sitting on a fence post ~ 5 feet  
off ground. Its head is quite red but dark  
around eyes and bill is white. Two flickers  
one ♀ other a also on ridge calling. White-breasted





Smith, J  
1989

Journal  
2 mi NW Lafayette

42

Russell Lee Farm, Contra Costa Co., California 1300 ft

10 Feb

nest hatch heard early to the E. Sun is shining thru the fog now but it is still quite thick. Sitomus calling from Bay Laurel on W side of ridge. Flock of juncos (~10) feeding in live oaks on W side of ridge. Flickers wings are making loud flapping or "whooshing" as they beat. Fog is clearing off slightly & I can now see the lower road (leading to parking area) from the ridge. Heard a hummer fly by. I also think I've been hearing the gurgling of a California Thrasher. The birds are becoming more vocal now at 9:46 AM.

11:26 AM caught ~10 Golden-crowned Sparrows at Mulberry Bush when I ran to net N-S over old well. Sun has burnt off fog except for around hill tops. Can't think I see fogging underneath Mulberry bush. all the Golden-crowns popped yellow-green

Geeneville, Sonoma Co., California

Route: 101 - N out of San Francisco (~2 hr drive)

4 miles N of Santa Rosa go W on River Rd for ~15 miles. In Geeneville there is a stop sign go thru it, then 1~~st~~ BLK go left and see River Lane Cabins on SW corner.





nuth, J  
1989

# Journal

43

Georgetown, Sonoma Co., Calif. 200ft

10 Feb

Riverlane Resort, Alby and Wallie Bass

707-869-2323, P.O. Box 313, 1st

and Church, Geomerville, CA. \$50/night.

Cabin with Queen bed, couch, Kitchen, small  
mini bed, wood burning stove, deck, grill  
refrig and kitchen stuff. We needed to  
bring paper towels. Bed had water in it.

TV was color. No hot water in shower, and no  
maid service. We ate Lamb Cassoulet, California  
greens, fugu and Blueberry acetar.

11 Feb

9:30 AM very cloudy (foggy) in the morning.

Ravens were calling near the river. 2 Fishermen  
fishing. Acorn Woodpecker tapping in tree next-

to cabin. We ate Texas Carrot-Bear muffins  
for breakfast. I had Peet's 101 Blend with

cream. Stove was gas and works well. We

bought cozy logs and paper towels at the

safeway 1 blk west on 1st street. After

breakfast we drove 2 mi N on Armstrong  
Wood Road to Armstrong Redwoods State Reserve.

We walked into Redwoods for ~1 hr,

saw flickers, varied Thrush, Townsend's Warbler,  
Nuthatch, Acorn Woodpecker.

Oil light was staying on, checked it but  
level is high. After walky in the Redwoods

we drove into the park. \$3/car) it

went up in elevation and we got into Lone Oak





Th, J  
1989

# Journal

44

Jennville, 2 mi N of Huntington Redwoods, Sonoma Co., Calif.  
11 Feb rolling hills. The habitat was very disturbed; lots of lichen on the oaks, everything seemed to be dying. Saw Cooper's Hawk come screaming thru a clearing with ~6 varied thrush all "tooping". Didn't see hawk take anything. Rain clouds came up so we went back to cabin. I took a very cold shower, we rested and read and ate lunch, Chris made chicken, avocado and tomato on fufu - very good. ~5:00 pm we drove W on 116 toward Jenner. at intersection of 116 and Hwy 1 we went S on ① to Goat Rock state Beach. Very windy beautiful walk along sand bar. Lots of Hunter seals, they breed March so looked like they were getting ready to Welp. ~6:30 pm sun down, we drove back to Jenner North on ① to Restaurant: Jenner By the Sea right at S edge of town. I had Seafood Supreme with wine sauce, prawns and scallops \$16.00, white wine, salad and for desert we had swiss chocolate pie. Chocolate cookie and chocolate Mousse - good. Meal pretty average. Chris recommended Blue Ham in Sausalito Mills on 116 just W of Jennville.





with, J  
1939

# Journal

45

## Georgetown, Sonoma Co. California

12 Feb We drove W on 116 to Highway 1, drove N on (1) to Fort Ross. A ~~the~~ Russian fort the furthest S outpost of Russian Empire in N. Amer. They hunted sea otters for furs. ~pm we returned to Gea then drove E on 116 to Monte Rio where we went S on Bohemian Hwy. to Occidental ~ 6 miles. We ate lunch at Union Hotel, very Italian family style. I had Chuck Caciatore go. Also got bread, antipasto, salad, soup and raviolis! After lunch continued S on Bohemian Hwy to Valley Ford freestone Rd then to Hwy (1) south to San Francis Drake. Stopped in Fairfax at Julie's apartment. Just before town limit of San Anselmo. Julie will have continued on San Francis Drake to Hwy 101 S to Golden Gate. Oil light kept coming on when accelerator not put down. Refueled to Ches ~ 6pm.

## 25 Feb Russell Tree Reservations, near NW Lafayette Contra Costa Co. CA.

9:00am Weather was sunny and very warm ~ 50-55°, but in past 1/2 hour it has become quite threatening to the south and is now overcast. The SS pair near the Mocking Bush would not respond to playback of song sparrow. But in a Bush pile ~ 75 yds S (over the road) there is an individual chimney. I have played playback





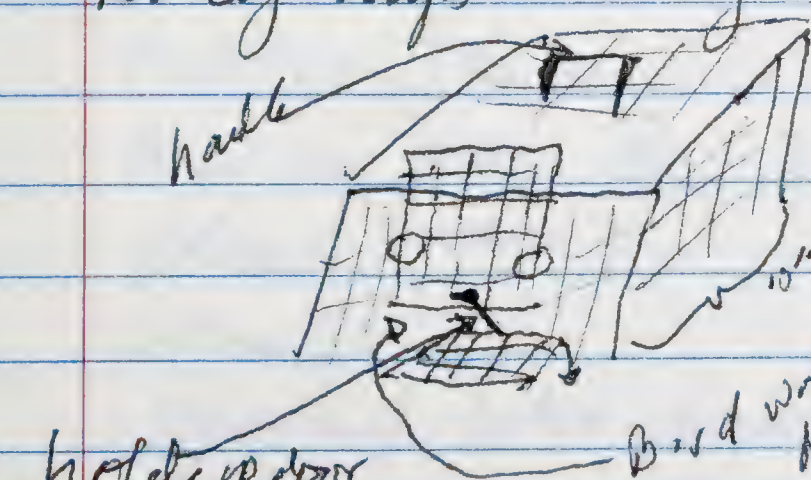
Ph, J

1989

# Journal

46

Russell Tree Remover, 2411 NW Lafayette, Catalina, Calif 95009  
 25 Feb but it doesn't stay "chirping" thought I may have heard a higher pitch give a response from S to SW. Black Phoebe was giving a "Peck" call repeatedly from that old tool shed like they just W of nesting patch. The hillside a green with a thick mat of grass ~8" tall, even the road is green and muddy from the tool shed on. The wind was increased 15-20 mph. 15 minutes later the individual is no longer in sight and has stopped chirping and will not respond to tape at all. It is raining lightly now and I have returned to the car and the cover of the pines. There is blue sky to one side of my peaks clouds to the other. We need the rain so badly it is hard not to welcome it despite the fact that it is interrupting field work. The wind gives me nothing "Yak-Yak" but nothing else is calling. The car needs a new wiper! Boy does it sound tough coming up over the hills. Yesterday Bob Jones gave me some Bailey traps to try out. He said we could make more for \$3.



holds up door until bird walks on platform.

Bird waves on the hill and follows it. That is supposed to be some







ith, J

1989

# Journal

47

Russell Lee Res. 2 mi NW Lafayette, Contra Costa Co., Calif. 13000.

25 Feb

I want to OK putting out bird seed with with Frank (Determan) before I go for a trial run. Yesterday, I spoke with Mary Ann Fox from the animal use corner. She was very nice and just needed some clarification of a few minor points. When I heard that she had called I got very nervous, thought there might be a big "Hoo-Hah" about the application. She said it would be reviewed in March. I heard a frog calling from the drainage ditch by the road, the "Dug-RRR" very rasping. The Scrub jays are imitating Red-tails. When I first got to the Malberry Bush this morning I heard a song sp. calling from that bush pile S of the bush it was going about a full song but sounded like it could have been a Fox Sparrow, but then I did see the song sp. in exact same area later. Chipping.

## Species List

Junco Vulture 6

Amer. Robin 1

Acorn Woodpecker HO

Scrub Jay 2, HO

Northern Flicker 1

Stellar's Jay HO

Mourning Dove HO, 6 Flying

Black Phoebe 1

Wren Tit HO

Chestnut-backed Ch Creeper HO

Red breasted Nuthatch HO

from leaves at  
near rain increased  
very noisy and got  
a bunch of warblers.







2, 8  
1989

# Journal

48

Russell Inc Farm, 2 mi NW Lafayette, Contra Costa Co. Calif 94594

is list  
y Vulture  
1-tailed Vulture  
Horned Grebe  
Killer's Jay  
Scrub Jay  
T. Wren  
Brown Creeper  
Golden-crowned  
Song Sparrow

4 March Out at Russell to set up some feeding stations. Put Saffron Cardinal Chow (1.39 5 lbs) at wood pile near fenced in pond. Also at mulberry bush set up pile at the bath tub and near well spring. At this spot I heard a full male call followed immediately with no break a female gurgling. Then there were some "chirps" this was at 7:00 a.m. The weather is overcast and sprinkly. I have heard 2 other Song Sparrow full male calls up the hill ~150 yds. One sounded like it came from that area of W ridge I tried to net at earlier. Raining hard now, almost like sleet. I have taken refuge in the back of the static wagon (9:37 am).

5 Mar 7:30 pm take 22 minutes to get from home to Russell, I re-stocked the feeding stations with Chick Feed from Lucky Pet, near the alfalfa (b/t Arlston and ?) on University W side of road. SS are calling heard chirping from mulberry S side. 7 TV's soaring in very overcast, slight drizzle wind from NW ~10-15 mph. ♂ in mulberry just called 7:49, thought I heard ♀ gurgle from N in return.







with 1/2

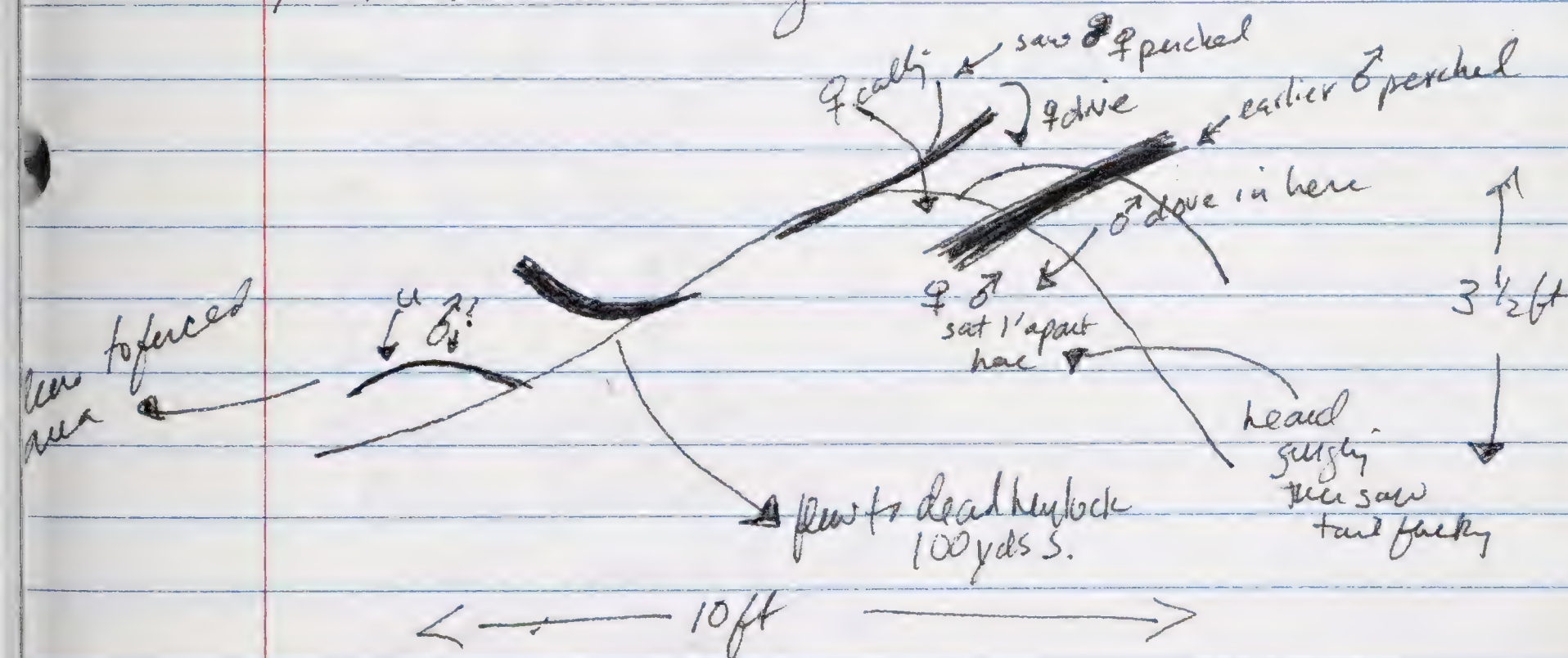
1939

# Journal

49

Russell Tru Reservation, 2 mi. NW Lafayette, Contra Costa Co. Calif. 13 Oct

9 am watching a pair 7:52 on E side of road just where gravel ends there is a brush pile. ♂ gave full call and female came out of pile gurgling. 7:53 winds have picked up 15-20 mph storm is threatening. I hear cally from W side. Lots of female vocalizations today. ♂ cally from 1st feeding station by pond. It looked like it had been eaten from so far to the S side moulting station but not N.



75 yds NE of talk hut where I'm situated

It seems today that I will hear a ♂ at the ♀ will gurgles in response. From moulting I have heard strange to, slow calls and partial of "week week WRATH". Golden-crowns (4) landed on W edge no response from SS. About 9:41 a large flock of white-crowns (~10) individuals flew into the brush pile, I haven't heard or seen an





with, J

1939

Journal

50

Russell Tree Reservation, 2 mi NW Lafayette 1300 ft. Contra Costa Co. Calif

9 Mar

Song sparrows since. The sun has poked out from 6 ft layer clouds to the east. Wind is still strong; but clouds are breaking up. Clouds thick now 10:12. I put out seed up on E trail in that patch of hemlock. As I was walking thru the middle valley w to meadow brush I scared up song sparrows from the dead hemlock. It was the same area I had seen that ♂ fly into earlier in the AM.

Species list

Turkey Vulture 6

Red-tail 10

Flicker 3

Rufous-sided Towhee 10

Brown Towhee 2

White-throated 15

Golden-crowned 4

SS 12

Black Phoebe 1

Robin 15

Stellar's Jay 1

Scrub Jay 2



Electric Fence

WB: BK  
FW: BK

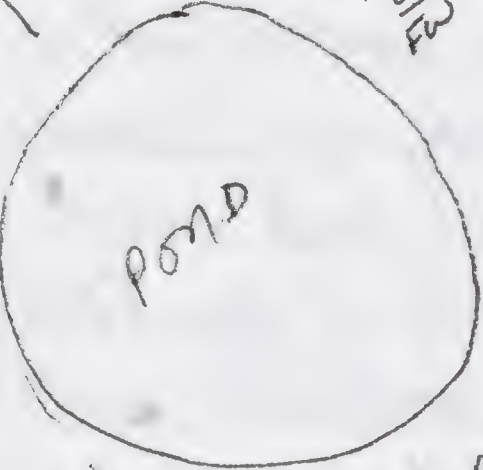
GR: YL  
FW: BL

FW: OR  
GR: BL

N

Cattail pond

28 man



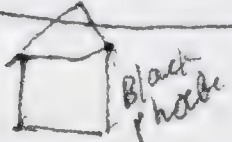
OR: BL  
FW: RD

BK: PK  
FW: YL

BK: GR  
FW: OR



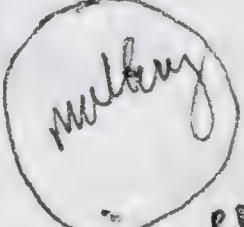
100 yds



GR: YL  
FW: BL

GR: OR  
FW: BK

GR: RD  
FW: OR



BI: RD  
FW: GR

YL: BK  
FW: PK

28 man  
Barbar

oil killed  
FW: OR

Red  
FW: BK

FW: Red

PK: BK  
FW: BK

\* - Bush  
XX - Brush  
XX - Hamlet



th, 9  
1939

# Journal

51

Russell Tree Reservation, 2 mi NW Lafayette 1300 ft., Contra Costa Co  
Calif.

Mar

Banded ♂ at wood pile 75 yds north E  
of mulberry tree he is  $\frac{\text{FWS}}{\text{red}} : \frac{\text{white}}{\text{pink}}$ . Female  
would not go in net. Set out feed and saw  
both indivs feeding from SE pile. Also banded  
possible pair just north of mulberry patch in  
dead hemlock. Both came into net right  
after I had used the tape player. I think  
canary birds are too large I will try  
Zebra finch. There 2 indivs were banded

$\frac{\text{Green}}{\text{FWS}} : \frac{\text{yel}}{\text{Blue}} \text{ ad. } \frac{\text{Orange}}{\text{FWS}} \frac{\text{OR}}{\text{BK}}$

$\frac{\text{BK}}{\text{FWS}} : \frac{\text{GR}}{\text{OR}}$  caught at Pond brush pile in baited trap

4 Mar

Very sunny clear; frost on the ground.

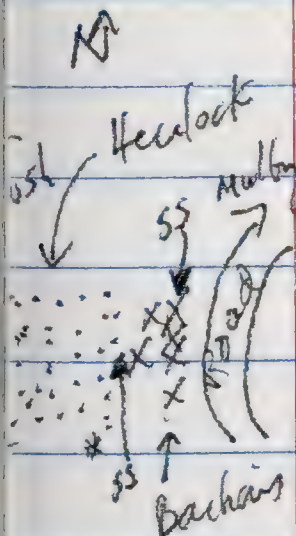
Set out baited traps ~ 6:45 am, I caught  
1431-14505 (IB)  $\frac{\text{FWS}}{\text{red}} : \frac{\text{WH}}{\text{PK}}$  at the brush pile

At 7:40 with a Golden-crowned juv on the  
other side. At 8:13 am caught 2031-8904

$\frac{\text{B/FWS}}{\text{R/G}} : \frac{\text{R/G}}{\text{R/G}}$  at Mulberry bush head mate (?)

calling (contact chirps while I was banding  
this indiv. Have sea trying to net indiv in Bachais  
clump 75 yds SW of mulberry. It is calling but  
flew over net. Saw a Green banded indiv in hemlock  
patch just N of mulberry ~ 8:30 am, it was  
calling. 9:46 am banded 2031-8905 ♀?  $\frac{\text{Red}}{\text{FWS}} : \frac{\text{YL}}{\text{OR}}$

She flew off to hemlock patch of  $\frac{\text{GR}}{\text{FWS}}$  and  
then she landed in the sparrows from the patch sang.









with, J  
1989

# Journal

52

Russell Forks, 2 mi NW Lafayette, Contra Costa Co., Calif 1300 ft

14 Mar saw  $\frac{GR}{FWS} : \frac{OR}{BK}$  singing in live oak ~ 10' off ground on N side of mulberry just to the S of the hemlock patch where I caught him. The bare patch on his head was visible from ~ 20 yds.

17 Mar Out to Russell by 6:40 AM, sunny, light cloud cover, no wind. Have nets set up at sight S of mulberry and in Hemlock in central valley. Both ♂'s are calling, also heard chirping as I was setting out nets. Saw a  $\frac{GR}{FWS}$  indiv feeding at bait on N side of mulberry it was with a 5 Golden-crowned. Watching both indivs ( $\frac{RD}{FWS}$ ) at brush pile. Am looking for nesting behavior. One indiv is more ♂ ( $\frac{FW}{RD}$ ?) than the other but both are seen sitting on top of brush pile. Could it be that indivs that are molting tail feathers now were last year birds? Lots of white-crowned > 6 on wood pile with  $\frac{FW}{RD}$ s.

$\frac{GR}{FW} : \frac{WH}{OR}$  was killed in mist net with its mate by a Cooper's Hawk! AHH I'm so mad I saw the hawk fly away as I came over the hill to check the net.





alt, J  
1939

# Journal

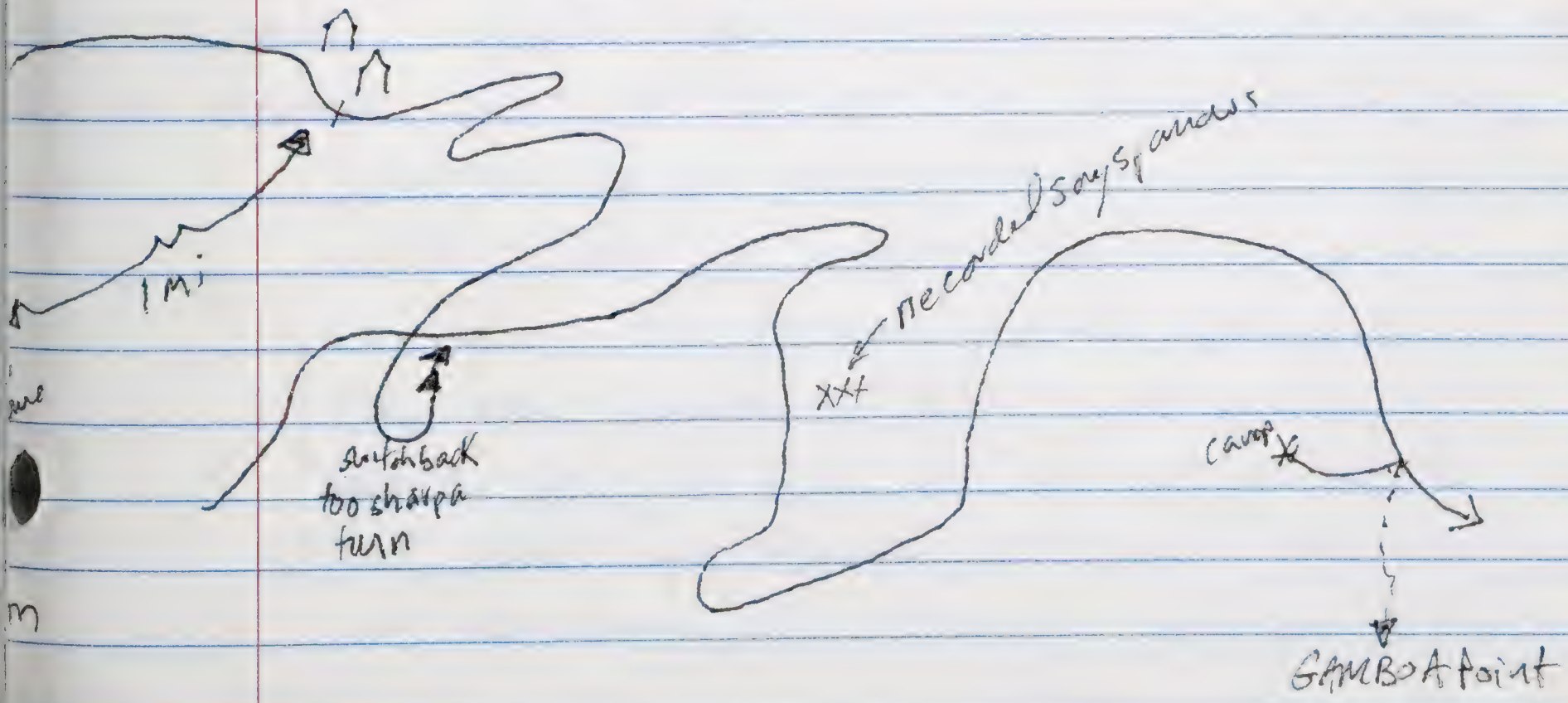
53

Big Creek Reserve, 20 mi S Big Sur, Monterey Co., Calif 400ft

19 Mar We started from Oakland yesterday at 1:00pm  
We headed 930 to 280 at San Lorenzo but  
major traffic jam sat there for 1 hr moving  
bump to bump there was no sign of an accident  
just lots of traffic. Once we got out of San Jose  
on 101 traffic lightened up we then went on  
156 at Watsonville which becomes highway  
1 at Seaside. We traveled S along 1 20 miles  
from Big Sur to UC Big Creek Reserve.

to you get to  
Lucia  
you are  
6 miles  
S of station

It is 5 miles S of Esalon Institute just on  
S end of 3rd Bridge from Esalon. John  
Smiley is Reserve manager (408-667-2543)  
lock comb is 87-88. John said road was  
clear to the Ridge campsite so at 6pm Chris  
and I started the climb up to the camp we drove  
the Volare, it got hot but made it w/o incident.  
To get to ridge camp:







Smith, J

1935

# Journal

54

Big Creek Reserve, 20 mi S of Big Sur on Highway 1, Monterey Co Calif 400 ft.

19 Mar

We had camp set by 7 pm we ate Salami

Whole Wheat Mix

1 cup whole wheat flour

1 cup whole flour

1 cup soy flour

1 cup wheat flour

1 cup Baking Powder

1 tsp salt

1 cup dry milk

1 cup sugar

1/4 cup Brewer's yeast

1/2 cup extra mix

1 cup whole wheat flour

1 cup whole wheat flour

1 cup whole wheat flour

1 cup whole wheat flour

1 cup whole wheat flour

1 cup whole wheat flour

1 cup whole wheat flour

1 cup whole wheat flour

1 cup whole wheat flour

1 cup whole wheat flour

1 cup whole wheat flour

1 cup whole wheat flour

1 cup whole wheat flour

1 cup whole wheat flour

1 cup whole wheat flour

sandwiches, not great but filling. The Gumbo we had hoped to have was still frozen solid.

Went to bed at 9:00 pm. The night was overcast but moonlight was brilliant enough for a stroll to Gamba pt. I awoke this morning at 6:21 am to the sound of juncos and house wren woodpeckers.

I fixed a breakfast of Soy. wheat Baking Mix Branlets (2 cups mix, 2 TBS oil, 3/4 cup H<sub>2</sub>O). ate them with

Wildflower honey from Long foods, Mokka Java, margarine and half-half. Mmm! delicious.

Fried branlets in tepalcates pan w/ 1 TBS margarine worked very well.

We ate lunch at the Best Western in Calmaria, actually Best Western is N of Town on sea side. I had a big burger w/ fries, Chris a BLT. It was typical restaurant fare, we got out of there for \$14 incl tip. I recorded song sparrows as we descended from the ridge

at Big Creek it was ~ 11:15 AM there were ~ 6 birds 3 on N side of road 3 on south

They were small and dark. They were in bracken fern, Tan bark oak and lots of Poison Oak, (dark red leaves), also live oak, redwood and Monterey pine. We left Big Creek at 12:45 pm



# The Santa Cruz Island Project





St. J

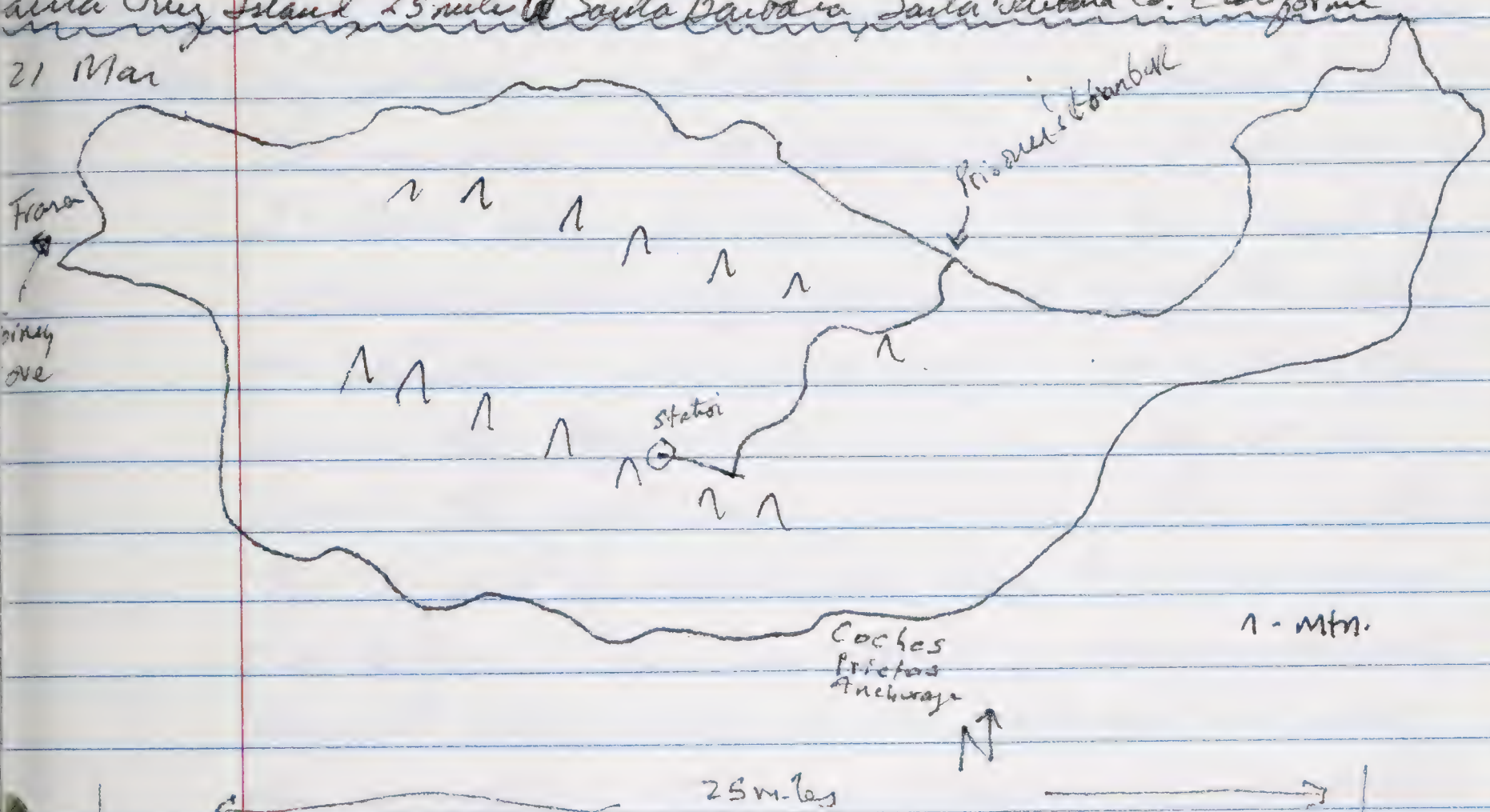
# Journal

55

1939

Santa Cruz Island 25 miles W Santa Barbara Santa Barbara Co. California

21 Mar



55: 961-3764  
exp. island  
real sciences  
one Calif  
1.1 V of Barb  
auto 93106

White-crowned  
ow (white loon)  
in Coches in  
Barbais

Yesterday we arrived on the island at 11:30 AM. It was a 1 1/2 hour ride from Port Hueneme which was 4 miles S of McGrath State Beach on Ventura Blvd. We took Pleasant Valley Road W onto the Base. Where we went to security office. We needed Driver's License, designation and proof of insurance. We loaded up the boat and headed out at 9:00 AM. Saw Western Gulls, a tern (flocks), Brown Pelican, Flock (~10) Western Grebe in the Harbor, I thought I saw a Skua on the way out. No mammals. Lendel met us at the gate <sup>at Prison's Harbor</sup> and drove us 2 miles to the station. There is a large Kitchen with dining area, surrounded by a screened in porch with Benet beds, ping pong table and couch. There is a popcorn air flower. After a lunch



# Santa Cruz Island

Rising majestically 23 miles off the Santa Barbara coast in California, wild and rugged Santa Cruz Island is a sanctuary in time. Its size, isolation from the mainland, biological diversity, and rich history combine to make the 96 square mile island a unique and very important part of California's heritage.

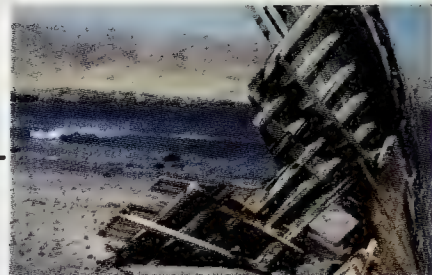
The largest and most topographically diverse of the eight Channel Islands, Santa Cruz stretches approximately 24 miles in length, is from two to seven miles wide, and encompasses 62,000 acres of land. Here are found examples of metamorphic, igneous, and sedimentary rock, major earthquake faults, Indian middens, fresh-water streams, creeks, and springs, and biotic communities that range from grassland to riparian woodland to coastal beaches and dunes. With its pristine coastline, two mountain ranges rising to 2,400 feet and 1,500 feet, pastoral central valley, and endemic plants and animals, Santa Cruz Island resembles a miniature continent.

The island supports a remarkable flora and fauna. Over 600 species of plants are found on the island in ten different plant communities. About 40 plant species are restricted to the Channel Islands, and eight of these occur only on Santa Cruz. Notable examples of these island endemic plants include the Santa Cruz Island Ironwood and the Island Oak. Over 130 species of land birds have been identified on the island. The Santa Cruz Island Scrub Jay is representative of island endemism, being larger and bluer than its mainland counterpart. Of the 13 species of terrestrial mammals on Santa Cruz, the Island Fox is a well-known endemic animal characterized by its small size, daytime foraging habits and docile nature. Hundreds of seals and sea lions find refuge in the island's protected coves. The 77 miles of shoreline cliffs, beaches, offshore rocks and tidepools provide an important breeding habitat for colonies of nesting sea birds and support a wide variety of crustaceans, mollusks, and other shoreline animals and plants.

Removed from extensive human impact by its location and conscientious private ownership, Santa Cruz Island – with its unique assemblage of landforms, habitats, and plant and animal life – stands as a living example of primeval America.



# History



Prehistoric occupancy of Santa Cruz Island is dated before 5500 BC, and estimates of the Chumash Indian population on the island at the time explorer Juan Rodriguez Cabrillo "recorded" it in 1542 range from 2,000 to 3,000. Among the estimated 3,000 archaeological sites is the former principal island settlement of the Chumash.

In 1839, 25 years after the last of the Chumash Indians were removed to missions, the island was granted to Andres Castillero by the Governor of California. In 1857, Castillero sold the island to an Englishman, William E. Barron, who in 1869 sold to a group of San Francisco businessmen who formed the Santa Cruz Island Company. In 1880 Justinian Caire became the principal owner and established a colony of mostly French and Italian immigrants on the island. This early ranching operation produced, among other things, walnuts, olives, cattle, sheep, honey, almonds and some of the finest early California wines under the Santa Cruz Island label.

In 1937, Edwin L. Stanton of Los Angeles acquired the western nine-tenths of the island and concentrated on cattle ranching. In 1957, Edwin's son, Dr. Carey Stanton, returned to Santa Cruz Island to take on the task of managing the ranch. Along with Ranch Manager Henry Duffield, Dr. Stanton continues to run a "functioning nineteenth century cattle ranch."

In 1975, Dr. Stanton approached The Nature Conservancy about a possible joint conservation effort to ensure preservation of the island. Through a generous arrangement with Dr. Stanton and an outpouring of public support, The Nature Conservancy was able to acquire an interest in the Santa Cruz Island Company property by 1978.

Today, a conservation partnership exists between The Nature Conservancy and the Santa Cruz Island Company. Included within the boundaries of the new Channel Islands National Park, the Santa Cruz Island Project of The Nature Conservancy will provide for continued protection, research, and educational use of this privately-owned land.





# Management

Proper management of the Santa Cruz Island's biological and historical treasures requires the use of careful stewardship practices based on sound scientific research. The Conservancy's Santa Cruz Island Preserve Management Plan calls for continued emphasis upon research and assessment of various plant and animal species and communities, geological formations, and archaeological sites. In cooperation with Dr. Carey Stanton and the existing University of California Natural Land and Water Reserve Research facilities, a program of directed research and restoration continues.

Educational programs specifically related to Santa Cruz Island will continue both on and off the island. A film and slide program are available for use by interested groups, and lectures by project staff may be arranged.

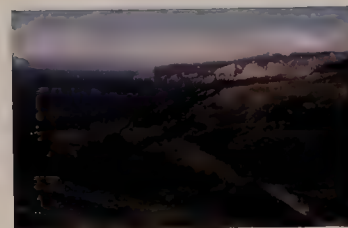
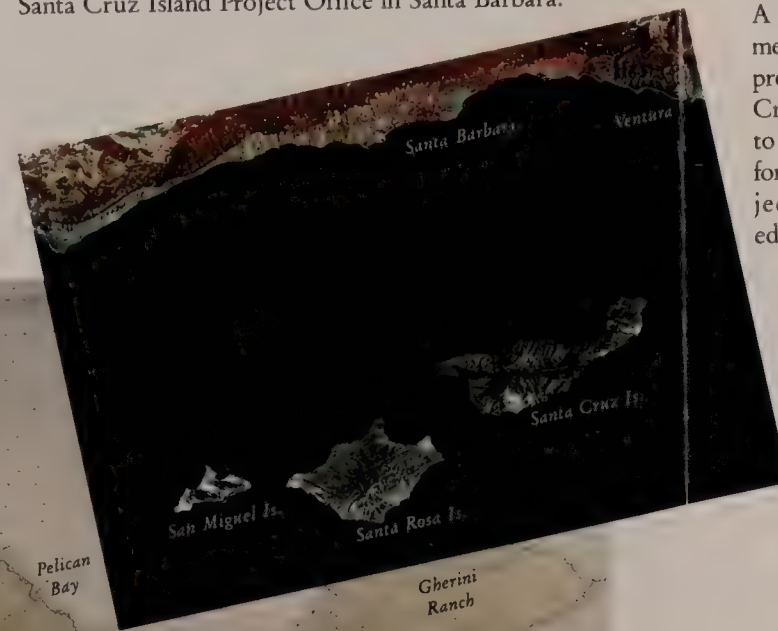
Although limited public use of Santa Cruz Island will be encouraged, the island's biotic communities are extremely fragile, and intensive recreational development and use would be disastrous. A Public Use Plan provides for those uses which (1) do not threaten the island's natural resources, and (2) serve to emphasize the island's biological and historical importance.

# Access

Due to its isolation from the mainland, consequent costs of transportation, and fragility of certain portions of the island, access to Santa Cruz Island is strictly limited. Yachtsmen may obtain landing permits by writing the Santa Cruz Island Company at 515 South Flower Street, Los Angeles, CA 90071. These permits allow daytime landing and list strict rules governing activity on the island.

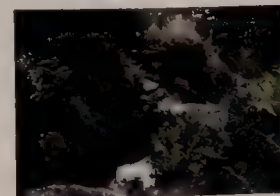
There are no established trails, camping facilities, or services of any kind on Santa Cruz Island.

A limited number of naturalist-led day-trips to Pelican Bay are scheduled each year. Groups representing educational, research, and non-profit organizations are eligible to request reservations. Inquiries regarding these periodic trips may be made by contacting the Santa Cruz Island Project Office in Santa Barbara.



# Funding

The Nature Conservancy's Santa Cruz Island Project began with a gift of land and the acquisition from the Santa Cruz Island Company of 54,500 acres at a cost of \$2.6 million. A major corporate gift provided a large sum to begin the drive for funds, and then individuals, foundations, and corporations participated in the massive effort to raise additional money for the acquisition. A second fund-raising drive resulted in the establishment of a preserve fund which has been instrumental in providing for Nature Conservancy stewardship of Santa Cruz Island. Continuous financial support is necessary to ensure permanent protection of this important landform. Your contribution to the Santa Cruz Island Project will help provide for continued research, educational programs, and general island stewardship.



# The Nature Conservancy

A private, non-profit membership organization, the Conservancy was incorporated in 1951 in the District of Columbia for scientific and educational purposes. Since its inception the Conservancy has preserved over 2 million acres – including forests, swamps, streams, prairies, deserts, marshes, and mountains – throughout the United States, Canada, and Latin America. It has focused significant efforts upon the protection of islands and island groups, including preservation of Virginia and North Carolina Barrier Islands, Maine coastal islands, and the San Juan Islands in Washington State.



# Join The Nature Conservancy

Your contribution of \$10 or more to the Santa Cruz Island Project entitles you to all regular member benefits of The Nature Conservancy including a quarterly newsletter on the Santa Cruz Island Project and access to over 30 preserves in California.

Enclosed is my special contribution of \$\_\_\_\_\_ for The Santa Cruz Island Project.

Name \_\_\_\_\_

Address \_\_\_\_\_

Phone \_\_\_\_\_

Please send this form with your tax deductible check payable to The Nature Conservancy/ Santa Cruz Island Project, 213 Stearns Wharf, Santa Barbara, CA 93101.





with J

1989

# Journal

56

Santa Cruz Island 25 mi W of Santa Barbara, Santa Barbara Co, California

21 Mar

Of salami sandwich, candy, fig bars and seal  
tea we head W to Cochon Prieto. It was a  
2 1/2 hour hike up over the crest of the island to  
a beautiful blue bay immediately W of the station.  
We climbed ~1300 ft to ridge in the middle of the  
island then down ~1 1/2-2 mi to the bay at sea  
level. The red soil is stark the pale is shade.  
The N part of island came from LA the S from  
San Diego. There was plenty of Bachmans with  
Bewicks Wren, Orange-crowned Warbler. Bird  
very secretive. The scrub jays are huge and brilliant  
their bills are 2X normal. They are very common.  
Red-angled Sapsucker in Eucalypts at station, also  
Woodpeckers in the live Oaks and Northern Flickers  
round out the picid representation. Saw an  
Amer. Kestrel also in Eucalypts, Mockers too. The  
Bewicks Wren sound very much like Song Sparrows.  
There is a small creek that winds its way around  
the trail toward Cochon. Willows, Pepper trees and  
Bachmans live its edges, I believe orange-crowned  
warblers were in this area. Rufous-sided Towhees  
were in the oaks and chaparral. Along the stream  
at dusk I thought I saw a Red-tail goose  
low thru the vegetation. All the avi-fauna seen  
decidedly shy and hard to see. Once we  
reached Cochon Bay we walked N along  
the shore ~500 yds and did some tide





th, J

1989

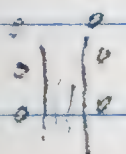
# Journal

57

Santa Cruz Island, 25 mi W of Santa Barbara, Santa Barbara Co., California

21 Mar

pool investigation. There were anemones, at purple sea urchins, mussels everywhere. The beach was beautiful white sand at low tide. There were mounds of abalone shells and charcoal left from the Cochise Indians which were extirpated by the Spanish from the island and brought to mainland where they succumbed to white man's diseases. On the beach we found turtle tracks leading from the water to 25 yds inland where they turned around and headed back to ~~shore~~<sup>water</sup>. By size it may have been a green or a loggerhead. *Macysa* Island to the S is a breeding site for Brown Pelicans at the tide pool I collected an empty shell of *Astraea undosa*. Ken found a beautiful conch with a beautiful polished surface.



1 1/2 in

turtle



conch

Today, we traveled W to Forney Cove (a 2 hr drive). We left the station at 9:00 AM we traveled along the S ridge road. Saw Golden Eagle circling with 2 Northern Ravens, many American Kestrels. (<sup>>20</sup>) Saw a pair of Kestrels perched on a telephone pole. Along the River bed - saw Song Sparrows and Rufous-crowned Sparrows. Rufous are large Brown Towhee - esp. The habitat of the sparrows was dry stream bed with *Mimulus*, *Baccharis*, Pepper Tree, Mesquite (which was blooming lavender with tall multiple flower affairs), California Sage, and scrub Oak. The







with, J  
1939

# Journal

53

~~Santa Cruz Island, 25 mi W Santa Barbara, Santa Barbara Co, California~~

21 Mar Sparrows were on the Baccharis predominantly.

I heard full song sparrow calls and good chirps.  
The birds were small with dark plumage.

I also saw some Song Sparrows in the old cattle  
barn area just E of Foney Cove Ranch House.

Rob was at the house he said that Nature  
Conservancy had censused the pigs and that the  
estimate was +10,000! The Nature Conservancy

is pretty extortionate but Rob is a ranger or fantasist  
of hunting type so he is ambivalent. In the Beechey

Pine along the ridge I heard Rufous-sided  
Towhees, Scrub jay not much else. At Foney

cove there was short grass with golden flowers  
and prostrate Baccharis. Horned larks and

Water Pipits were prevalent on the plain. Down

by the Ocean, Black Oyster Catchers (4), <sup>2 pc. a</sup>

Western Gulls, Pelagic Cormorant (Breeding colony)

<sup>Buddy</sup>  
~~Black~~ Turnstone. As the flock (~6) turnstones

flew up from the beach there was plaintive Squeaky  
and a very dramatic Black and White Back pattern and

The Throat looked black. On the Jeep ride back

from Foney Cove we spotted Two Santa Cruz Island  
foxes. These dogs were short-legged and fat.

They looked like lazy ~~shelties~~ Shelties.

They were grey on back red underneath with

bristly grey and black tail which was as long  
as the body. Face was grey marked black outline.







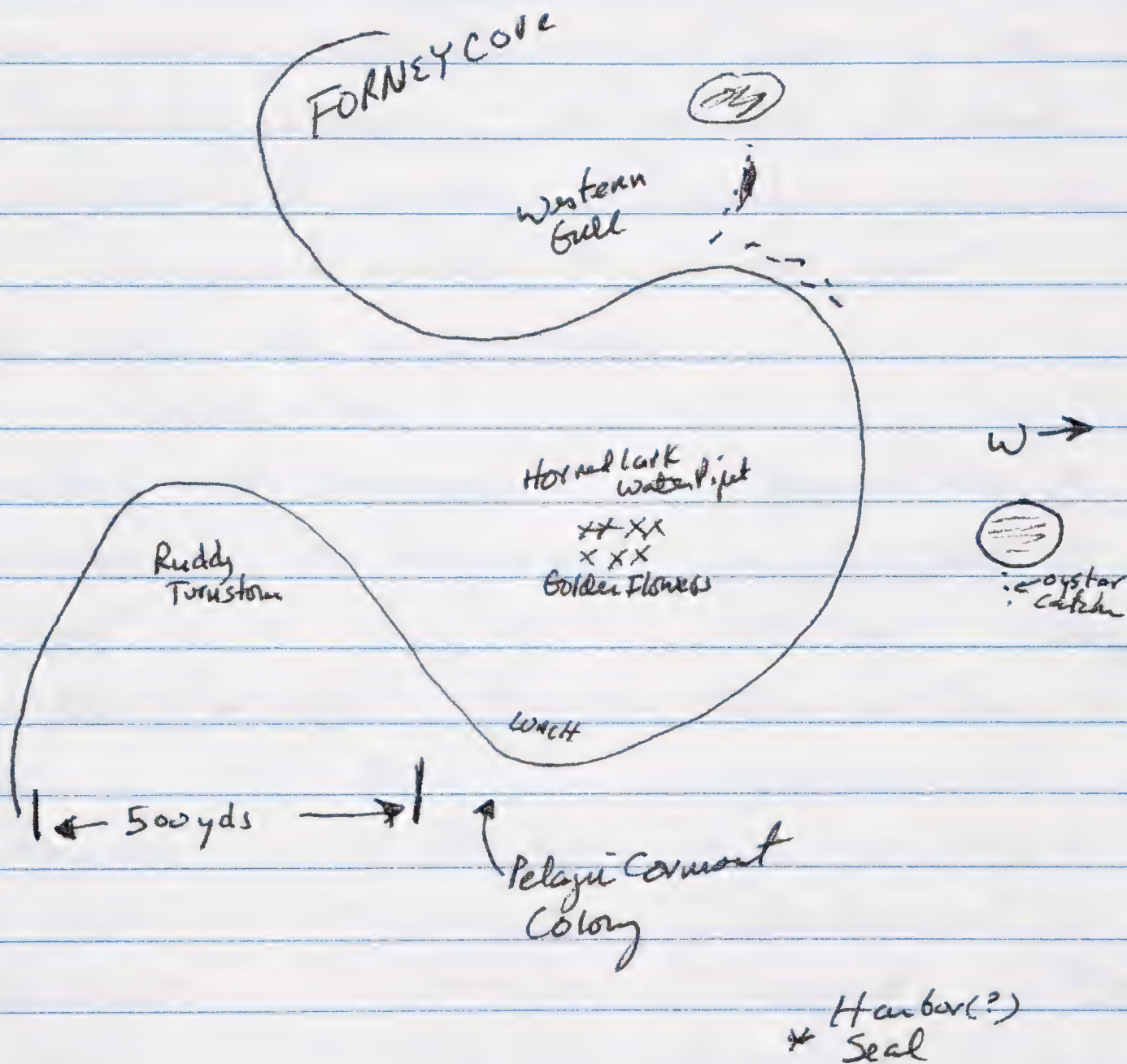
with, J  
1989

# Journal

59

Santa Cruz Island, 25 mi W Santa Barbara, Santa Barbara Co., California

21 Mar



As we ate lunch on N Pt of jitty we saw  $\frac{1}{2}$  mi. of shore a seal with rear and forward flippers sticking out of the water. There were 3 or 4 other seals with just their noses poking out of the water some were within a few inches of this oddly behaving indiv. The indiv with flippers sticking out was ~5' long and once or twice in 25 minutes it rolled over with just its head sticking out but these bouts lasted no more than 30 seconds a piece.

The albatone likes the shoreline. I collected





mt. J

1939

# Journal

60

Santa Cruz Island, 25 mi W Santa Barbara, Santa Barbara Co, California

21 Mar an empty shell ~ 6" long and 4" wide with a series of ~ 6 small 1/8" holes along the side. Also in the tide pools we saw a Robin Fish in a 6' deep 15' long pool. Purple sea urchin, + 1 x 10<sup>6</sup> mussels! The beach was carpeted with the mussels. Sea anemones were large some 1' long and 6" wide! Ray and Bob fixed chicken veggie stir fry for dinner.

## Species List.

Brown Pelican ~ 8	Ferry Cove	Brewer's Wren 3
Pelagic Cormorants 50	Ferry Cove	Logperch Shrike 2
Snowy Egret 1	Ferry Cove	Water Pipit 25 Ferry
American Black Oystercatcher 4	Ferry Cove	Rufous-sided Towhee 15
Killdeer 2		Song Sparrows 5
Ruddy Turnstone ~ 8	Ferry Cove	Rufous-crowned Sparrow 4
Western Gull 40	Ferry Cove	Western Meadowlark ~ 75
Pigeon Guillemot 4	Ferry Cove	~ Goldfinch 20 Ferry
Golden Eagle 1	Bridge Road	House Finch 4 ♂:♀
Amer Kestrel + 4	Pair	Starling 40
Calif. Quail + 40		
Mo. Dove + 20		
Anna's Hummingbird 1	40	
Northern Flicker ~ 15		
Black Phoebe 2	Farm yard at Ferry	
Horned Lark 35	nesting at cave (3 eggs from speckled egg)	
Barn Swallow 5		
Scrub Jay 50		
Northern Raven 20		





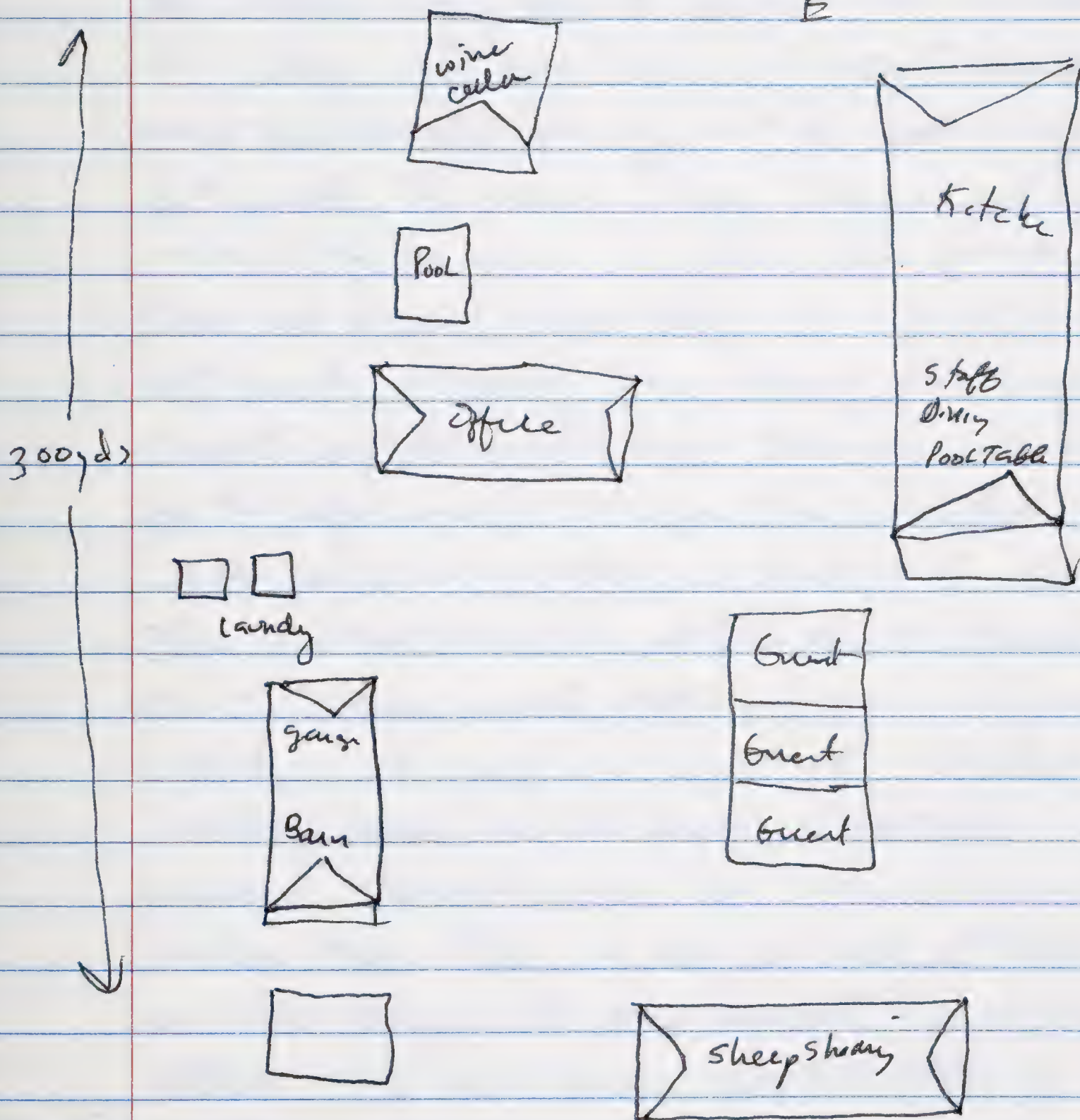
Fl, J  
1939

# Journal

61

Santa Cruz Island 25 mi W Santa Barbara, Santa Barbara Co, California  
22 Mar 0830 went to Stanton Ranch E of field station  
for a tour of the grounds by Brian

↑  
E



1000 we left W 1 mi down road to Cascadia.  
The turn N is just past the ~~the~~ high 4 wheel-  
drive hill then is a wash and if you follow the  
300-400 yds you come to dammed off area.  
This is 1/2 mi past Serealeptus grove with  
Natur Conservancy Cabin. Chris and I liked it





with, J  
1989

# Journal

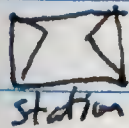
62

Santa Cruz Island, 25 mi W Santa Barbara, Santa Barbara Co. Calif.

22 Mar The gorge to inspect the deeper pools. We found many (~4) with beautiful waterfalls and holes in the stone. The pools on average were 10' wide and 4-5' deep. They were clear and cold. Black Phoebe were tentatively displaying at the ~~edge~~ very edge of the pools. They gave a sharp "cheep" and another would fly in from 10' above diving bombing. Chris and I sat wait deep in a pool and ate lunch (Burrito, Beans, Bacon, tomato and lettuce) Canitos and Chocolate Chrys). Then we climbed up the gorge until ~1:30pm then climbed out of the gorge and walked S back to the Road. Then we met Ken, Liz and Bob and we took another dip in the man-made pool. It was all quite refreshing. The gorge was lined with Baccharis with willowy branches and long leaves. I recorded song sparrows, Bewick's Wrens and Orange-crowned Warblers today. Then we may ss call at Stanton Road and also many in the dead hemlock wood S of station. Very dark birds. Back at station by 4:00pm. Walk to wash takes ~30 minutes song walking.

dog  
Fido  
Ratwich

Lyndell's  
room



station

hemlock

Eucalypts

cobras

Oak  
Baccharis

Baccharis  
up in

hill

Ward

1 mi

Robert  
dawnridge

1st pool







nth, J  
1939

# Journal

63

Santa Cruz Island, 25 mi W Santa Barbara, Santa Barbara Co. California  
22 Mar

## Species List

~~10~~ Golden Eagle 1

Red-tailed Hawk 1

Amur. Kestrel 6 (2 nearby in Sycamore E of station)  
(call: kek-kek-kek)

Calif. Quail 75

Turkey HD 2

Peacock 2 Stanton Ranch

Mo. Dove 30

Allen's Hummingbird 1 ♂ W of station in Hinkley

N. Flicker 6

↗ Black Phoebe 5

Acorn  
Woodpecker 2

Bar Swallow 10

Scrub Jay 12

N. Raven 4

Bush Tit 6

Bewick's Wren 1

N. Mockbird 2

Orange-crowned Warbler 5 Stage call recorded  
"tull breet-breet"

Rufous-sided Towhee 40 10

Song Sparrow 8

Rufous-crowned sparrow 25

House Finch 2 ♂: ♀ Ridge top





th, J  
1989

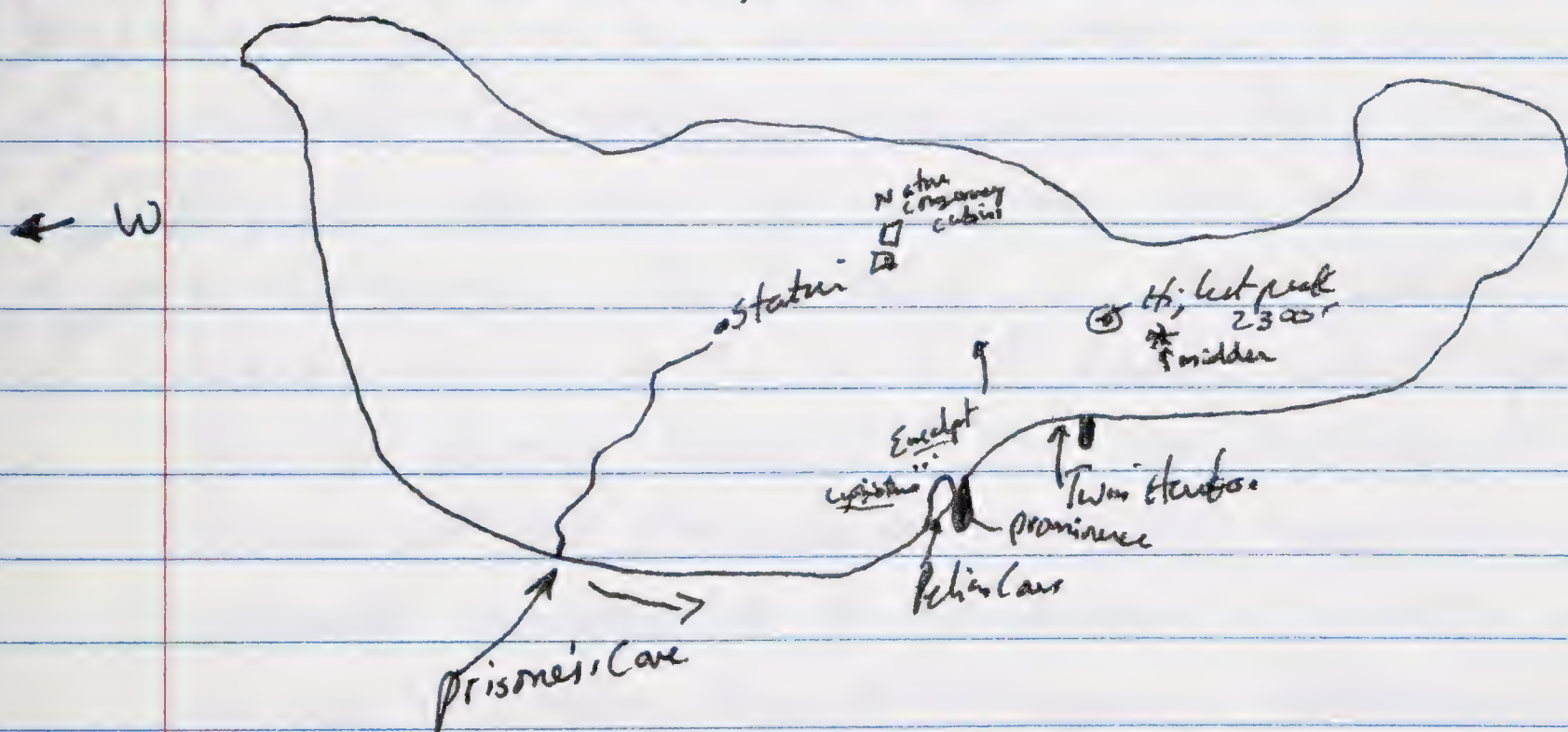
# Journal

64

Santa Cruz Island, 25 mi W Santa Barbara, Santa Barbara Co., California

23 Mar ~~Ken & I~~ 0530 AM awoke to record Song Sparrows and Orange-crowned Warbler. I walked W to the Eucalyptus grove and E to entrance to Stanton Ranch. Recorded Bewick's, Kestrels, Western Meadowlark, Calif. Quail, Allen's, Northern Flicker etc... It was quite foggy with no wind. Recording was good. Recorded until 7:30 AM. Ate breakfast of Biscuits, scrambled eggs and Major Dickerson's coffee. Ken then rented a jeep and drove us E to Pirone's Cove.

Red-tail Hawk  
Eggs at ~~Stanton~~ Spotted flycatcher (dying) on way to car.



We found a sick seal at the cove. It was tremendously emaciated, 6 folds of skin on its abdomen. Ray and I headed W along the shoreline for 1/2 mi to Pelican Bay there were about 3 or 4 seals to traverse. We should have gone to twin harbors but mistook this spot. Pelican Bay showed signs of habitation at once there was a house but now it looks like a





with J

1939

# Journal

65

Santa Cruz Island, 25 mi W Santa Barbara Santa Barbara Co, California

23 Mar campsite with stumps and a flat spot for a tent. The fog was beautiful and there were 3 seabirds harbored when we arrived at 11:20 am. From Pelicans came a <sup>*Lyonotheanus*</sup> ~~*Linnaea*~~ or Ironwood Tree were found surrounding this fog. The Corymbus was also in bloom. A seal was playing in the harbor. It looked like he saw us '200' above him. We walked S from Pelicans in a grassland. There were also *Eucalyptus* lining the cone. 4 Ravens were squawking in the canyon on E side of Bay. There were a few Lepus in flower. We walked S for ~ 3 mi we were looking for the Cave middens Ray had explored yesterday. Because the fog was so thick he could not see off the highest peak. The middens are 300 yds below the highest peak and to the W in the valley about 100 yds to the W. But we under shot since we took off at Pelicans and not Twin Harbors. We ate lunch on a peak ~ 1/2 mi W of highest peak. I ate an egg and cheese biscuits and apple. Drank a quart of water for whole day's travel. Because it was overcast it was not too hot. We hiked further S until Ray got his bearings and we walked along the Ridge W to the highest peak. The *astragalus* (legume, pea green with marigold like yellow-flower) were in bloom, many flowers were blooming yellow. We came thru a zone of

Pelicans  
Ericaceae  
also a  
red scrub  
or with short  
fuller flowers  
except for  
longer today  
be fed by  
adults.  
milkweed picked  
up of the adult  
to top from mid-  
to feed when  
young.







74, J  
1989

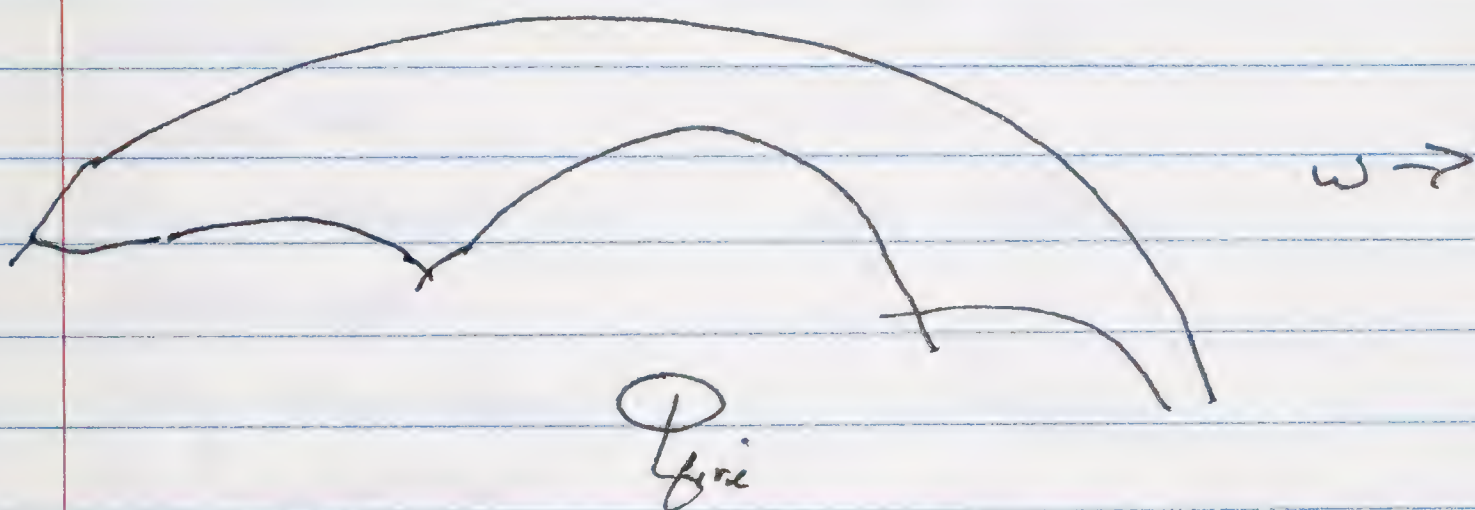
# Journal

66

~~Santa Cruz Island, 25 mi W Santa Barbara, Santa Barbara Co., California~~

23 Mar

Bishop Pk. On the high ridges there were only low growing plants (1') We walked W to the middens at the sun broke thru at the peaks. The middens were in a large cave 20 yds by 6' high (at entrance)



Abalone shells were all collected once the area it was ~1900 ft in elevation just up the valley from Twin Harbors. We left the middens at 3:25 pm and headed S just to the W of the peak following the old fence. At the peak we spotted the Nature Conservancy ~~camp~~ cabin and headed E down slope (leaving the valley with the fence) we went ESE until we hit the road just at the hill with the Nature Conservancy cabin. Looking NW from Nature Conservancy cabin into the highest peak the middens are to the W in the valley ~200 yds from top. The valley echoes tremendously ~5 times before it becomes inaudible. We returned to station at 5:15 pm. This was a strenuous day's hike but well worth the effort. If the day had been clear, more would have been collected.





Smith-J  
1989

# Journal

67

~~Santa Cruz Island, 25 mi W Santa Barbara, Santa Barbara Co., California~~  
23 Mar

## Species List

Red-Throated Loon (winter)	1	Prison Harbor
Brown Pelican	4	"
Pelagic Cormorant	6	
Black Oystercatcher	2	Pelican's Harbor
Killdeer	1	Station
Western Gull	6	
Pigeon Guillemot	2	Pelicans
Golden Eagle	1	
Sharp-shinned Hawk	1	Pelicans
Red-tailed Hawk	1	
Osprey	1	Pelicans
American Kestrel	8	
California Quail	1 Band 100	
Mourning Dove	100	Ridge
Aller's Hummingbird	2	Funnel W of Station
Northern Flicker	5	
Acorn Woodpecker	5	
Black Phoebe	2	
Barn Swallow	20	Ridge
Scrub Jay	20	
Northern Raven	10	
Bewick's Wren	35	
Rock Wren	2	HO ~25
Blue-gray Gnatcatcher	1	HO Pelicans in Bldg
Northern Mockingbird	1	Ridge
Cedar Waxwing	15	Pelicans

Pearce →





with, J  
1939

# Journal

68

Santa Cruz Island, 25 mi W Santa Barbara, Santa Barbara Co., California

23 Mar

## Species list

Olive-crowned Warbler	100
Rufous-sided Towhee	100
Song Sparrow	15 station
Rufous-crowned Sparrow	2 station
Chipping Sparrow	1 station
Golden-crowned Sparrow	3
Western Meadowlark	2 Hto 10
House Finch	20 Ridge

24 Mar

Chris and I drove to King City on 101 we arrived ~ 7:30 four hours after leaving Oxnard. We ate dinner at Wild Horse cafe 1/2 mile S of King City on 101 ex. t Wild Horse Rd. Not great, typical trucker stand ~\$14.00 for 2 gas. We stayed over at The Best Western (on Broadway) in King City. Nice (\$44/night) but expensive. Yet it was clean. In the morning we drove to the Pinnacles taking 6-16 off of 101 - N. Very nice, but it was raining so we didn't go in.

28 Mar

Russell Tree Res. 2 mi NW Lafayette, Contra Costa Co., Calif. 130 ft  
5:50 am left home for Russell got out at sunrise, it was overcast, misty / Raining all morning and into the afternoon. Banded  $\frac{PK}{FW}$ : BL/BK at the Hemlock patch east (~~100~~ 75 yds) from Mulberry tree. Trapped it with bait. There is another individual in





with, J  
1989

# Journal

69

Russell Tree Res. 2 mi NW Lafayette, Contra Costa Co., Calif. 1300 ft

28 Mar That area. Netted  $\frac{BK}{FW} : \frac{PK}{TL}$  at the Birch pole E of the pond. And netted  $\frac{OR}{FW} : \frac{BL}{RD}$  at the W side of the pond. Saw and heard  $\frac{YL}{FW} : \frac{BL}{PK}$  at the territory where the 2 were taken by the hawk. I saw the hawk again today it is a Sharp-shinned not a Cooper. Nobody is responding to song to type in YL/FW's old territory altho I did hear and see what I thought was a ♀. She rose up out of the hemlock N of the oak tree in the center of that territory. She responded (?) to playback. Perhaps YL/FW left w/o mate? I saw both Red/FW and FW/RD in the thistle patch S of their wood pile. It appears they are feeding in that area just N of the hemlock with PK/FW. I also saw GR/FW: OR/BK in the same area he was calling from the metal cyclone fence post just across the road (E) of the Mulberry tree. Later in the morning (11:00) I saw his supposed mate GR/FW: YL/BL at the cattail pond N of the pond ~ 70 yds. She was with an unbanded ♂ who called frequently. The OR/FW indiv I caught at the W pond side screamed when I pulled it out of the net and also when I banded it. Heard and saw another male up the hill N of road from electric fence plot ~ 100 yds W of cattail pond. Set up net for early morning attempt on Thursday.







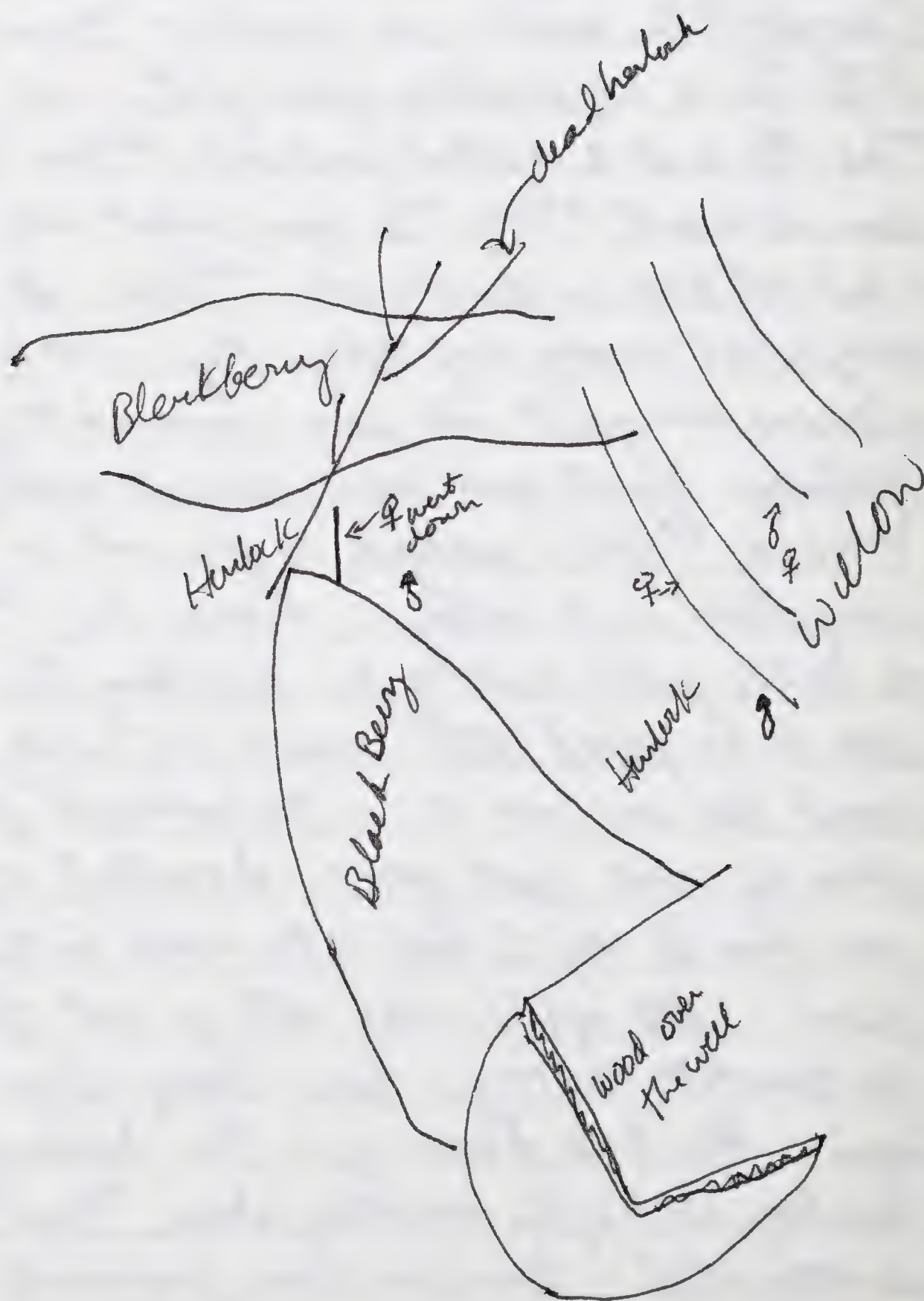
Th, J  
1989

# Journal

70

Russell Tree Res. 2 mi NW Lafayette, Contra Costa Co. Calif. 130 ft  
30 Mar 0605 hours out at Russell, fog lifting off low  
lying areas. Very cold ( $\sim 40$ ) and wet with  
dew. Had nets ready to unfurl at the  
cattail pond with at the site N of the  
electric fence plot 100 yds N of cattail.  
Caught the male in scrubby thicket areas.  
 $\sigma^7 \frac{WH}{FW} : \frac{BK}{GR}$  is N of electric fence plot, and  $\sigma^8$   
 $\frac{FW}{GR} : \frac{OR}{BL}$  is at the cattail pond with  $\sigma^6 \frac{GR}{FW} : \frac{Y}{BL}$ . I  
saw and heard  $\sigma^6 \frac{GR}{FW} : \frac{Y}{BL}$  giving contact call to  $\frac{FW}{GR} : \frac{OR}{BL}$ .  
I did not hear a female with  $\frac{WH}{FW}$ . It is a  
very bright sunny day today. By 1030 hours the  
sparrows are quiet and non-responsive to playbacks.  
Yesterday Frank must have burned woodpile  
 $\frac{FW}{GR}$  and  $\frac{Y}{FW}$ 's woodpile is gone and so are  
many others in the valley. I saw the Reds in  
the thicket patch east of the mulberry tree they  
seem to be paired still. Went NE along the  
road there are no SS in the hemlock patch  
where they were last year. I called a pair  
from the very E end of the road in the pine  
grove. Lots of PD will set up net there  
for tomorrow morning. Saw Sharp-shin again.  
This time I was up in the Bacharis  
territory NW of the mulberry where  $\frac{Y}{FW} : \frac{BL}{PK}$   
was ~~very~~ settled. There are now primarily white  
crowns in that area ( $\sim 12$ ). I was standing  
by the Bacharis giving "chirp" playbacks when a







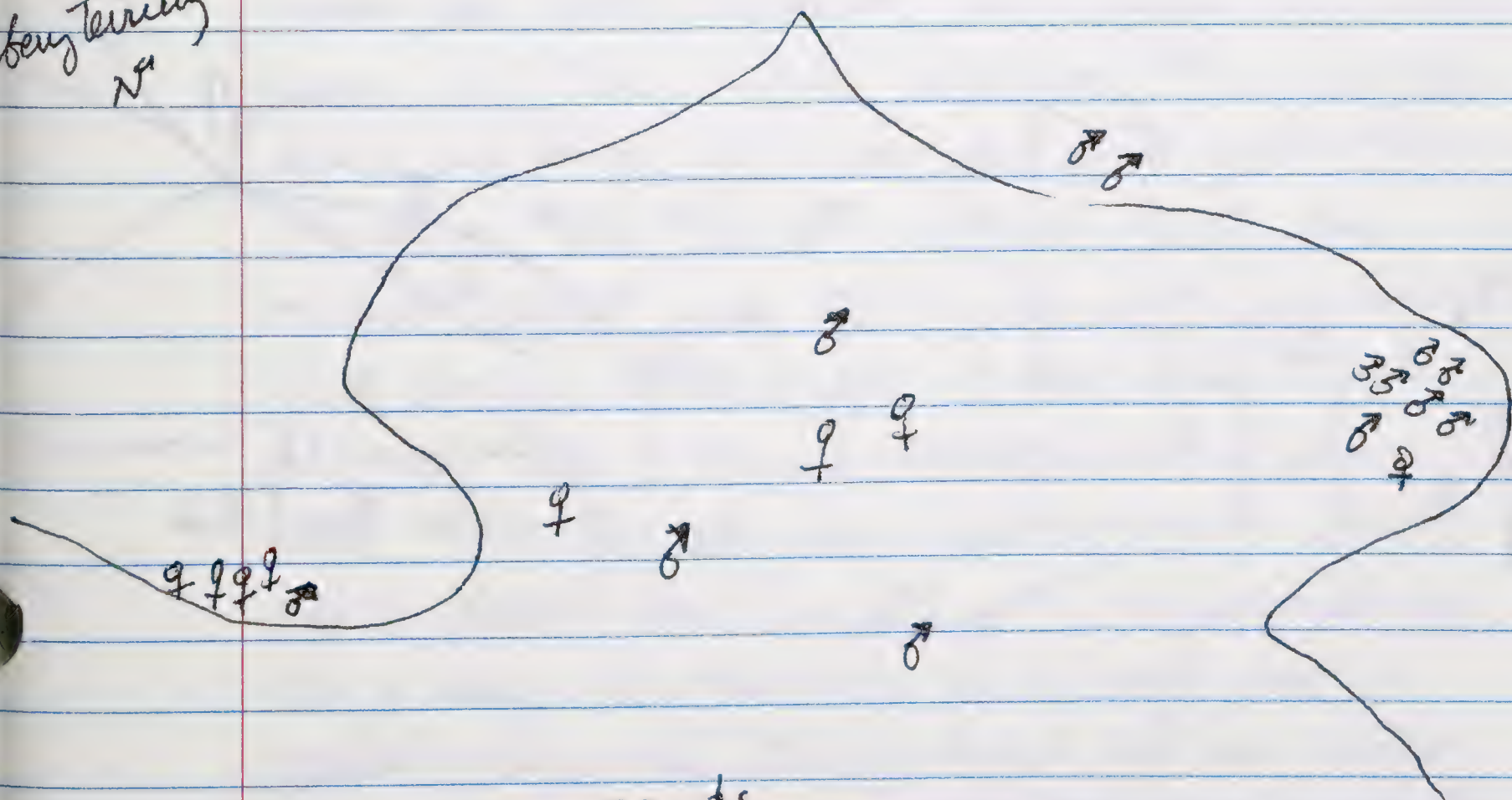
with J  
1985

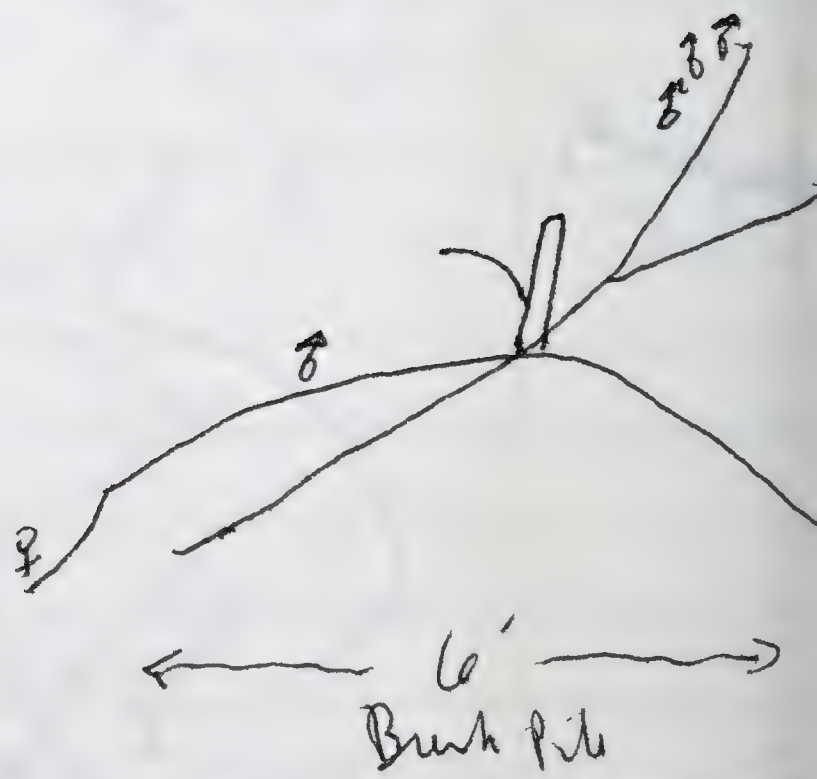
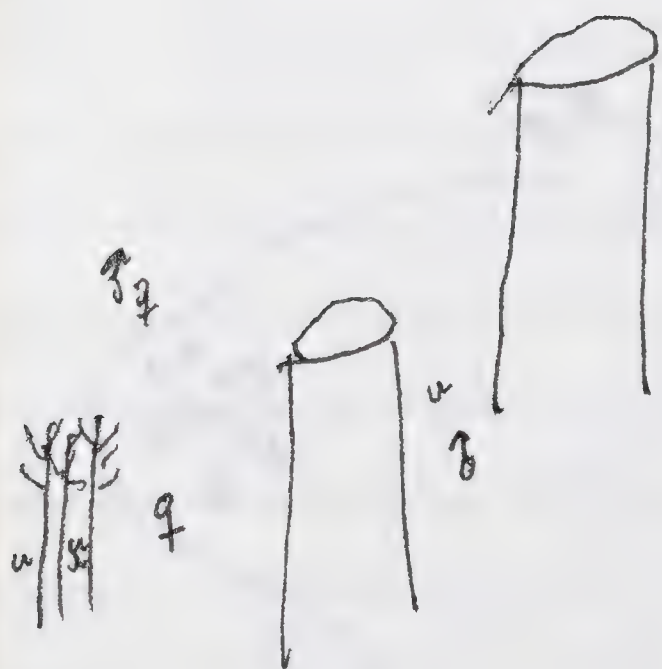
# Journal

71

Small Tree Key 2 mi NW Lafayette, Contra Costa Co., Calif. 1300 ft  
30 Mar  
of a sudden the white-crowns burst from the ground in the back to the Bachair. The Hawk flew in low (~8') from the NW and landed on a fallen log 10' to the NE of me. It sat there looking from side to side 30-40 sec. Then flew 5' north landed in grass put head down into grass and then flew off to fence post nearby the planted plot N of the Malbay tree. Then it swooped into the green bamboo presumably hunting the white-crowns and Goldfinches in the area. It then flew off rapidly headed N low (5') following the road out of into into the pine grove. The forester are felling logs in there today so it is quite noisy.

Using Territory  
N<sup>th</sup>







Smith, J  
1989

# Journal

72

Russell Tree Res., 2 mi NW Lafayette, Contra Costa Co., Calif. 130 ft

30 Mar Recaptured ♂ of Mulberry. He looks fine, bands OK, wt - 23.0g.

1 April Netted  $\frac{FW}{BL} \frac{Y}{OR} \frac{F}{M}$ ; and  $\frac{FW}{BL} \frac{PK}{GR}$  at the W side of small pine grove. They were netted ~1000 hours. I had nets set up at the far E most larger pine grove with circle drive but only saw  $\frac{FW}{PK}$ . He looked like his head had not been grown. He was calling and flying but left foot would not clear around branches and he seemed to hobble in the brush. I left the nets up in hope of catching his mate and the other pair I heard at the circle drive yesterday. Many Bewick's Wrens on the N side of the Lagrand. Today it was clear early in the morning windy (10-15 mph, ~45-50°) at 0630 hours it has warmed up and wind has died down but little overcast, birds seem more active now. 11:42 am I am observing  $\frac{BK}{FW}$ 's at the brush pile to see if I can find their nest  $\frac{BK}{FW}$ :  $\frac{PK}{YL} \frac{F}{M}$ ;  $\frac{BK}{FW} \frac{GR}{OR} \frac{F}{M}$ . ♂ was calling from top most dead snag of the pile and ♀ emerged out of the low lying vegetation S of the 2 tall trees. She flew to S most edge of pile and suberged into it. I can hear  $\frac{OR}{PV} \frac{PK}{RO}$  calling from W side of pond. Sounds like he doesn't have a mate yet. I walked along the S edge road thru many pine circle drive to central valley. Nothing too good but lots and lots of Poison Oak. 12:10 pm saw both individuals on wood pile.







18  
1989

# Journal

73

Russell Free Res. 2nd New Lafayette, Contra Costa Co. Calif 1300ft.

1 April

They emerged from wood pile and flew to low lying vegetation  
off 2 big trees. ♂ Nuttall's is powdery and calls from "bleep"  
the big trees surrounding the wood pile. His full red head  
is brilliant against strongly barred back of black and white.

12:21pm both indivs. flew from N. 20yds onto the trash pile  
made ♀ on same female disappeared into W side of pile.

♂ chased a dark-eyed junc from N gear to trash pile.

12:48pm indiv emerges from low lying veg momentarily then disappears.

I heard some "chirping". 12:55 again indiv emerges from  
S end of low lying veg fly N ~ 5' and disappears with  
a few chirps. 1pm stopped observation. Failed Central  
Valley Station.

2 April

0625 hours arrive at Russell, very warm ~ 55 no  
long underwear necessary. Tried to net FW/OR <sup>wh</sup> RD's  
mate but to no avail. All activity ceased ~ 1000

hours. At 0725 I observed ♀ <sup>FW</sup> BL <sup>HL</sup> OR with nesting material  
in mouth. She was diving down near Bachan by the  
old barbed wire fence. Tuesday I found the sharp-shinned  
nest in the pine grove in the draw E of FW/BL.

They have built on S edge 20' up in cedar  
~ 25yds ESE of Eucalyptus. I saw at least both  
indivs. One of them brought a branch to the nest. I also  
saw the indiv fly over this draw ~ 0830 - 1030 several  
times. Heard 2 or 3 calls during this period.

Tuesday, I saw <sup>FW</sup> BL <sup>RD</sup> OR acting like she was going to  
pull up grasses but I never saw her actually do it.







Smith, J  
1988

# Journal

74

Russell Tree Reservation, 2 mi NW Lafayette, Contra Costa Co, Calif 1300 ft.

6 April 1840 hours observing  $\frac{PK}{FW}$   $\frac{BL}{BK}$  and mate in  
hemlock. He was "sipping" as if she were on  
eggs. At one point male called from  
SW corner of hemlock. I was standing on W  
center. Female arose from E side past  
the center walked (it seemed) and flew  
10 yds WNW to edge of hemlock there she  
called as she held her wings out in a  
teggish posture. Toward the end of the watch  
I moved W of the patch 35 yds. When I  
did a ♂ called, a ♀ answered from W  
edge of hemlock and also a response from  
thistle patch where  $\frac{PK}{FW}$ 's had been out.  
It seemed that at one time or 2 possibly  
there were 3 of them in the hemlock.  
1847 hours  $\frac{FW}{RO}$   $\frac{WB}{PK}$  was in small hemlock  
patch just E of mulberry (across the road). An  
indiv from W side of hemlock gave ♂ call  
and this indiv responded w/ a ♀ call.  $\frac{FW}{RO}$   $\frac{WB}{PK}$   
is in the small thistle patch. Both  $\frac{FW}{RO}$ 's in  
small thistle. ♀ came up and responded to ♂'s call  
from 6:30 thistle patch  $\frac{WB}{FW}$  is ♀. 1935  $\frac{WB}{FW}$   $\frac{BK}{PK}$   
calling from area where originally banded. I also heard  
an indiv calling from  $\frac{BK}{PK}$  2nd site but not seen also.





uth. J  
1989

# Journal

75

Russell Free Reservation, 2 mi NW Lafayette, Contra Costa Co., Calif. 13198

2 April

0624 hours arrive at Russell, too late to catch  
FW/OA <sup>wh</sup>AD mate again but she eluded me.

She has been calling from S end of P.O. grave  
and also giving calls in large conifer.

I did not wrentit (2) ad Golden-crowned  
sparrow. Her behavior would indicate she

is nesting. At 0800 hours I took down the  
net and started obs. on FW/BL <sup>Y</sup>RO and <sup>PK</sup>OR pairs.

They were very quiescent, sitting in thistle patch until  
0925 hours. It was quite warm after this morning

but not so humid as yesterday. There is a good  
breeze. Saw Sharp fly W over the canyon.

Also saw Red-tailed fly 0730 hours in  
canyon. At 1000 hours I found the song

sparrow nest of FW/BL pair. I had observed  
♀ with nesting material as I tapped a way  
thru their territory. Pair became agitated

flew in from thistle patch as unbeknownst to  
me I located the nest. I walked beyond the

nest at 25 minutes birds were quiet. I

decided to walk back (S) 15 yds to where  
I had lost the ♀ with stuffy in her mouth.

As I did, I spotted the nest. 1 1/2' high  
off ground in low lying prickly bush ~ 2 cubic

feet. The bush is 2 1/2' E of barbed wire where  
I flagged. The area is opposite the small

pine grove. I put dog away around nest.







Smith II

1999

# Journal

76

Amell Lake Res., 2 mi NW Lafayette, Contra Costa Co., Calif. 1300 ft.

7 April

There were no eggs. I presume it is almost finished since cup was sturdy and well formed, but I did have material with her this morning.

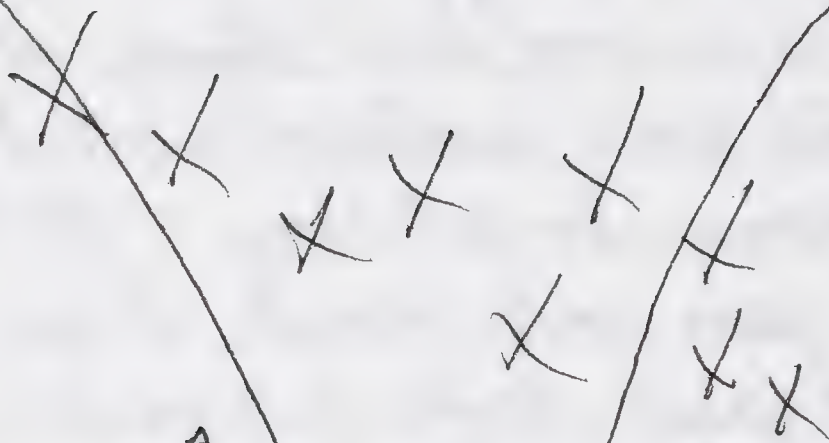
9 April

● 1700 hours bright sunny ~ 85°F looking for BK/FW's pair nest. Heard ♂ sing from small grove of pines 30 yds E of pond. I scared up the ♀ from the WSE most deciduous (populus?) tree. There was what looked like a start. In retrospect the ♂ started calling when I got within 5 yds of nest. I had started the search at the wood pile but found nothing and got no response. I checked the tree-horse tree and virtual pine nothing, checked Redwood 20 yds SW of pile nothing. So perhaps that day I had so much looking in the pile fleetered them. Went over to BK/FW's W side of pond. Heard whom I thought was him sing and consort w/ unmarked indiv. I scared them both up out the henlock (dead) that lines the W side of pond. I flagged the NW corner of what I thought looked like a start with pine needles. They gave some sipping while I was in the area but only for (minute or so). At BK/FW's area there was no sipping at the start seen further along. In both areas there was lots of white-wash.



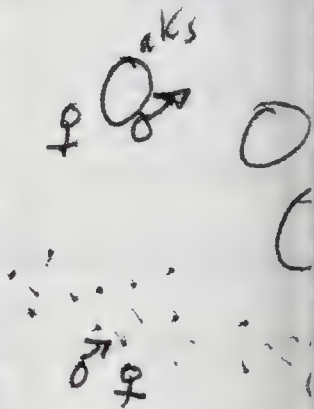
Observatory  
Road

Wh  
FW : GR  
Bx



X 98  
Beck's

X me



Q. X.

Red Fox

♀ ♂

♂

electric fence

Road



Journal

77

10 April @ 1606 hours came out to do observations on  $\frac{W}{Kw} = \frac{64}{16}$

in the draw N of the electric fence across the road from the cattail pond. He was with his ♀. Last night I heard them cally from the by Bachman on W side of draw and also in dead hemlock SE of those 30 yds. Today when I climbed up the middle of the draw the ♂ called from the oak grove and ♀ responded from the willow thicket just S of Oak grove on E side of draw. I positioned myself directly 6 ft the willow thicket and the Bachmans they are about 45 yds apart. I scared up a Red Fox as I climbed the draw. It was lying in the tall grass on a foot path I had made last night. It was a long fur w black ear tips, fur was golden colored. There was white around the joints. At first I thought it was someone's old house pet. But then I saw the bushy tail. It looked back at me while I watched it around the W side of the draw. It walked NE along the ridge top out 4 mts. In all it took 15 minutes to go 250 yds. I saw Western Bluebird pair today, at a keyhole. Saw first Red-winged Blackbird on the 8th. Orioles have been back since 3 April when I saw 2 ♂'s cally in poplar near electric fence plot. Temperature was cooler today in 70's and now 1832 is chilly for short sleeves ~65







th, 9  
1939

# Journal

78

Russell Fice Res., 2 mi. NW Lafayette, Contra Costa Co., Calif 1300ft

13 April

FW/BL 4/10R and FW/BL PK/10R

had four eggs to transfer

egg 1 length 18mm  
breadth 13  
weight

egg 2 length 18  
width 13  
weight 3g

egg 3 length 17  
width 14  
weight 2g

egg 4 length 18  
width 13  
weight 2g

4 unfertilized

♂ 203/- 8908 PK FW BK

egg 1  
length 20  
width 14  
weight 2.5g

egg 2  
length 19  
width 14  
weight 2g

egg 3  
length 20  
width 15  
weight 2.5

egg 4  
length 19  
width 15  
weight 2.5

Three eggs from FW/BL nest were traded with four from PK/FW. The 1st egg of FW/BL was broken by me. FW/BL eggs were smaller and had more rusty colored spots concentrated more on the end than PK/FW. During the transfer I put 3 House Sparrow eggs in the FW/BL nest. When I returned one was missing. The eggs had been bored





with 18  
1989

# Journal

79

Russell Inn Res., 2 mi NW Lafayette, Contra Costa Co., Calif 1300ft

3 April

Three and they were cracked in some places. I wonder if the ♀ tossed the egg out or was it a jog. I checked BK/FW's nest in the small runner among the deciduous tree, it had one egg today. I put down dog away. ~~yesterday~~

Tues (11 April) I found a new pair and their nest S of FW/BC's <sup>with</sup> AD's territory. It was up the ravine ~100 yds. Nest was in some prickly pines ~2' off the ground it is ~5' NW of the flag. There were no eggs. and I opened fence with nesty material in mouth in the morning. Yesterday I spoke with Mark Reginald's at Sager said road was clear for 1st time all year. Birds were singing and that Forest Service will be in Penny Pine near station see 20. When I went back to FW/BC's territory with the transplanted eggs I scared up an adult from 20 yds S of nest under a thistle. Found mulberry tree pair nest. From woods well due ENE 6'. I flagged a tall thistle (2 1/2') just 8" S of the nest. It was ~1 1/2' off ground. 3 eggs. On the 11th of April I saw the Sharp-shinned Hawk's copulating in the pine grove about 20 yds NE of nest tree. Female also pulled at branch as if she was still looking for nesty material.





Th 19

1989

# Journal

80

Willow Lake Res., 2 mi. NW Lafayette, Contra Costa Co., Calif. 1304 ft

14 April 1100 hours checked transfer nests. 4 eggs were probably warm in FW/BL's nest. Didn't see ♀, heard her respond to ♂ as I left. ♂ called as I approached nest. PK/FW's ♀ was flushed from transfer clutch. Still 3 eggs, definitely warm.

April 1030 hours Wendy Roberts and I went out for obs. I pointed her at the cattail patch. She saw ♀ at S end also thought she saw ~~an~~ an unmarked ♂ coming & sing in the territory. I tried to net the pair up S in Ravine from FW/BL w/ no luck. Checked nest had 3 cold eggs. Heard ♂ and ♀ in the vicinity.

17 April 1700 hours tried to find FW/BL's ♀ but no luck yesterday I had heard her near the big conifer SE(10') but not a sound today. Heard ♂ FW/BL call while I was in area. Saw and heard BL/BK PK/FW giving sip-sip and full calls also saw incubated ♀ respond w/ call to his song. She was in the thistles N of nest. Saw GL/FW in this thicket today too. Have not seen Red





th, J

Journal

81

1989

Sagehen Creek Field Station, 1 mi W Hobartville, Nevada Co, Calif

18 April Arrived at the station 4 hours after leaving Oakland. Car behaved OK, I ran the AC to make sure I could start it. Seemed to be fine. Mark Reynolds and "Shorty" are running the station this year. Very nice, they stopped by at dinner we chatted about our research. Shorty has worked on geowar in Poppy's at Haskins. She studied in Eugene. Mark worked with Walt at Haskins on Magpie They are interested in Mountain Chickadees and Steller's Jay now. Mark mentioned I might think of Sino (as a possible field site (contact Kelly(?) Corbett) for more info at 1:20pm I set out E from the kitchen I crossed to S side of river at foot bridge at E end of meadow. I met song sparrows about every 60 yds. I tagged 6 ♂'s I saw ♀'s but they were quite quiet, I only heard one call. but they were out and visible. Most of the ♂'s were very excited by the tape and would "sip" a lot.

Species List

Northern Flicker 2	Brown Creeper 3
Mourning Dove 2	Yellow-rumped Warbler 2
Steller's Jay 1	Song Sparrows 10
Amer. Robin 10	







at, J  
1989

# Journal

82

Kussell Gulch, 2 mi NW Lafayette, Contra Costa Co., Calif

2 April 10:44 AM transfer of eggs #W/BK <sup>FW</sup>/<sub>BL</sub> ♀ and  
0<sup>th</sup> <sup>FW</sup>/<sub>BK</sub> <sup>BK</sup>/<sub>FW</sub>. Found nest this morning  
4 warm eggs

egg 1 with cap

length 21.71

width 14.95

weight 2g

egg 2

length 20.82

width 15.06

weight 2.25g

egg 3

length 21.11

width 15.29

weight 2.5

egg 4

length 21.14

width 15.19

weight 2.5

Wanted to switch with <sup>BK</sup>/<sub>FW</sub> at  
mulberry but nest had at least 2 young  
(1: 2 day old) and 1 egg, so switched  
with unmarked pair above <sup>OK</sup>/<sub>FW</sub>.  
Found 4 warm eggs

egg 1

length 19.82

width 14.29

weight 2g

egg 2

length 19.90

width 14.52

weight 2.0g

egg 3

length 19.45

width 14.46

weight 2.0g

egg 4

length 20.16

width 14.25

weight 2.0





th 19  
1989

# Journal

83

Russell Tree Res., 2mi NW Lafayette, Contra Costa Co., Calif 1300ft

25 April 0711 hours overcast, drizzle and cold (40-45°F)

The grass was crunchy from frost possibly.

Observed W<sup>h</sup>/FW <sup>BE</sup>/PK at his unmarked ♀.

Found empty fresh nest at N end of drainage attached to a live hawlock. Flapped dead hawlock

3' to SW. <sup>Dog moans</sup> ~~At 0930~~ I had observed them the

morning the ♂ and ♀ foraging and flying from nest site to 20-30yds away. They stayed in close

proximity to one another. ♂ vocalizing from

everywhere but 10yd radius of nest. Lazuli

flew into nest area and ♂ chased it away.

♀ did not vocalize much but she flew

around a lot. At 0930 I left without

territory and went to the pond. I saw <sup>PL</sup>/FW <sup>BE</sup>/PK

singing from woodpile and flying SE of that pile

heard no female also saw one of the <sup>BE</sup>/FW's

on the woodpile but could not tell whom.

at 1030 started obs. on <sup>OR</sup>/FW <sup>BE</sup>/PK at his

unmarked ♀. Found nest with 2 cold eggs

on W side of pond in hawlock. Flapped

SW of nest 3' and dog-awaked. The nest on

the N edge of the mulberry patch appeared

snuggly is still empty. Haven't seen red couple

for at least one week!







18  
1989

# Journal

84

Russell Ave. Res., 2 mi NW Lafayette, Contra Costa Co., Calif 94598

27 April Checked nestlings at mulberry bush. There were 2 well feathered and one pipped egg that looked very old and dry. One of the nestlings jumped out of nest, heard calling to it later in the day - 6 pm. Banded the other nestling 1431-14517, its B<sup>4</sup>/~~BL~~PK, tarsus one very fat. Female was also caught 84FW 04/4L, she looked very skinny. I checked nestlings at PK/FW and found 2 nestlings with partially emerged pin feathers and one warm egg. Did not band. Checked nestlings at FW/BL found 4 feathered nestlings with parents in attendance banded 2031-08534, B<sup>4</sup>/RD, 1431-14518 B<sup>4</sup>/RD, 1431-14519 B<sup>4</sup>/RD, 1431-14520 B<sup>4</sup>/RD. Parents chirped as I returned nestlings it took 25-30 minutes to band all 4.

8 April Checked OR/FW's nest on W side of pond 3 warm eggs flushed up & marked.

9 April Banded nestlings at PK/FW in fern patch E of Mulberry. 1431-14521 <sup>PK</sup>/<sub>PK</sub> and 1431-14522 <sup>PK</sup>/<sub>BF</sub>. Both were 100% just fully pinnaed no feather emergent. Headfeet shed some down, one egg left, pipped at water, but could not get it on it. Found OR/FW OR/BK's nest in Raddish patch E of mulberry 4 warm eggs, flaged and dry - empty.







with, J

# Journal

1989

85

Russell Trs Res. 2mi NW Lafayette, Contra Costa Co, Calif. 1300 ft

29 April

Obs at E side of pond where BK/FW's used to be. Saw <sup>PK</sup>FW <sup>PK</sup>PK and <sup>PK</sup>BK/FW <sup>PK</sup>PK and an unmarked indiv flew into well while I was looking for nest on SE corner of fenced area. It sounds like there may be a new ♂ N of BK/FW but S of pond. Also saw unmarked ♂ singing in back of Frank's farm.

2 May

egg transfer with ~~FW~~ ~~BK~~ to BK/FW OR/BK

WH/FW BK/BR eggs checked nest no eggs no ♀ in sight, nest had deer hair lining. ♂ was calling near electric fence at S end of draw.

Will try OR/FW BK/BD's nest - flushed ♀

egg 1

length 20.43

width 15.19

wt 2.25g

egg 2

length 19.50

width 15.26

wt 2.25g

egg 3

length 19.65

width 15.24

wt





with g  
1989

# Journal

086

Russell Lee Res. 2 mi NW Lafayette, Contra Costa Co, Calif 130 ft.

7 May

GR/FW OR/BK's eggs

egg 1

lyt 18.54

width 15.08

wt 2.25g

egg 2

lyt 18.14

width 15.49

wt 2.25g

egg 3

lyt 17.81

width 15.09

wt 2.0g

had rubbery surface

egg 4

lyt 19.08

width 15.30

wt

Found new male in draw E of WH/FW  
he was singing this morning. I netted him  
at 1800 hrs no ♀ around RD/FW BL/PK

BL/FW RD/GP was not a mulberry ♀ was  
feedy fledgling and GR/FW OR/BK was singing  
and chirpy all chirpy from the low territory.

4 May

PK/FW's nest fledged. I banded ♀ PK/FW BK/RD

This fledgling occurred 5 days after they had  
only 1 in feathers! Checked GR/FW's nest today  
in it. Heard and saw GR/FW and mounted ♀

in mulberry no sign of BL/FW or fledgling  
Collected GR/FW's nest. Collected PK/FW BL/BK's nest

It was 20cm off ground in dead fern. Cup  
is 5cm ± 7cm wide. Whole thing 12cm x 15cm.





with 18  
1989

# Journal

67

Russell Tru Res. 2mi NW Lafayette, Contra Costa Co. Calif 13 off

4 May

GR/FW OR/BK's nest dimensions: cup 6.0 x 6.5 cm

outer: 9.5 x 12.5 cm. Banded adults

♂ and ♀ ad 4 young in nest above OR/FW.

This family is all GR/FW on left leg. I saw

PK/FW BL/BK carrying food and ♀ is still in area

but saw no fledgling. FW/BL's feed at least

one fledgling. OR/FW calls but no sign of ♀

FW/PK rt leg in association with wing ♀ probably

complete nesting end of week. saw ♀ BL/FW

carrying food from raddish to mulberry but

have not seen fledgling.

Banded GR/FW's ♀ GR/FW RD/OR she had

a big brood patch. Checked OR/FW's nest at

pond flushed ♀ not off nest out 5' south

of nest. 4 eggs warm. Heard OR/FW call

5 May

Banded 3 nestlings at FW/BK's nest, not sure

what happened to 4th egg. By my calculations

these nestlings are ~5 days old. Unmarked ♀

w/ OR/FW at pond was flushed off of 4 warm

eggs. I could still read the #2 on

the one egg I picked up.

8 May

collected FW/BK's and 2 nestlings 3rd was nowhere

in sight.





St. J

1989

# Journal

88

Burnell Res, 2 mi NW Lafayette, Contra Costa Co, Calif 1300ft

10 May

checked <sup>R/FW</sup> <sup>BL/RO</sup>'s nest at pond 2 1-day old checks, 1 unpyrified egg labeled #2 and one almost hatched (cut all around) egg #4. Banded nestlings with one color band on each leg, left leg with orange on each

There are 2031-0892's young

nestling 1 <sup>left leg black</sup> ~~GP~~

nestling 2 <sup>R+fast</sup> ~~GP~~

Bill length 2.24

2.31

Bill depth 2.34

2.48

Bill width 1.57

1.61

wing length 5.99

7.17

tail length .34

0.69

Tarsus 5.19

6.42

mid toe 6.44

7.35

halter, claw 3.60

4.28

molt head at back downy

head, back, 2°'s downy

age 1 day

1 day

fat Stomach

decreased

claw 2.91 x 1.97

3.09 x 1.43

remarks

2.04

WT 3.08

Sagehen Creek Field Station

Arrived Sagehen 12:30pm very cold overcast



dam broken up, pen lines  
camp site

wh PK ♂  
FW RD

GR OR ♂  
FW YL

FW BL ♂  
RD WH

FW PK ♀  
RD BK

FW BL ♂  
YL GR

FW YL ♂  
BL BK

FW GR ♂  
BK RD

FW WH ♂  
OR PK

FW YL  
PK GR

FW BL ♂  
WH BK

FW GR ♂  
OR BK

FW GR ♂  
OR BK

FW GR ♂  
OR BK

FW GR ♂  
OR BK

OR GR ♂  
FW WH

BK RD ♂  
FW YL

BL FW GR ♀  
OR

BL PK ♂  
FW BL

BK RD ♂  
WH FW

OR RD  
YL FW ♀

GR GR ♂  
PK FW

RD OR ♂  
FW BL

RD WH ♀  
FW OR

PL WH  
RD FW

BL WH  
BK FW



th, f  
1989

# Journal

89

Sagehen Creek Field Station 3mi NW Hobart Mills, Nevada Co., Calif 6300ft

2 May

egg 1

length 21.64

width 15.19

wt 2.5g

egg 2

length

width

wt 2.5g

BL  
~~BL~~ FW BK / OR ♀ ad. Found nest of BL/FW pair  
in low lying dead grasses and willows? (1) 2 cold  
eggs. Both ad ♂ and ♀ heard chirping. Flashed 3' to SW  
labeled the fly BL/FW BK/BL. Also banded ♀.

14 May Russell Jarvis Res. 2mi NW Lafayette, Contra Costa Co., Calif. 1300ft

OR  
SW's young

1 egg left in nest

nestly ~~left leg colored~~ ~~color~~

left leg? 2nd  
color left leg

3rd  
no leg

Bill length 3.64

3.83

3.37

Bill depth 2.89

3.30

3.01

Bill width 3.14

3.09

3.13

wing length 16.46

19.09

15.97

tail length 0.91

0.98

not out

tarsus 12.05

14.16

11.75

mid toe 17.08

17.80

14.53

hollow claw 9.28

10.36

8.48

foot

Some fur is sternal

sternal and fur

little sternal, some fur

weight

10's not emerged, now back  
head down, belly not emerged

belly 0.95 / 2.86 another  
the same as #1

nothing emerged, still going down  
head and back

wt

10.5g

12.0g

10.25g

remarks

Banded

OR BK  
X X

OR BL  
X X

OR BK  
X X





with, 9  
1989

# Journal

90

Russell Tree Res., 2 mi NW Lafayette Contra Costa Co., Calif. 1300 ft.

16 May nest check at OR/FW's

Band	OR FW	BK	OR FW	BL	OR	YL
Bill length	4.58		4.49		4.08	
Depth	3.65		3.41		3.54	
width	3.28		3.45		3.26	
Wing length	26.49		27.37		24.70	
tail length	3.73		3.74		<del>1.42</del> 2.50	
tarsus	16.66		17.66		15.62	
mid toe	16.58		20.08		19.13	
hallux w/ claw	10.35		11.63		10.26	
foot	much furc, some sternal		same		some furc, but only slt sternal	
molt	only 3rd and 4th 10 (truly) are emerged 0.76		2-9th 10 are emerged 3rd is out 2.94		no 10's emerged	
wt	Back 3.02/8.57, Belly 1.24/4.24		Back 4.91/10.73, Belly 2.51/7.57		Back 3.77/8.42, Belly 1.37/3.39	
	15.0g		15.0g		13.5g	
remarks	eyes open, they were not lost + fine		eyes open		eyes open	
FW Band	2031-08950		2031-08951		not given	

Flushed ♀ off nestlings at 11:00 am heard ♂ calling. Both gave distress calls as I approached and left nest. Still one unprepared egg left in nest (#4).

Heard a ♂ singing w/ of road from pond.

Observed territory of <sup>♂</sup> FW ad BK/FW ♀ on E of pond. Heard and saw male call from forest well and small conifer patch. No sign of ♀. Did not approach nest b/c I was afraid of her deserting again.





Smith, J.

1989

91

Russell Field Res., 2 mi NW Lafayette

19 May Check nest of <sup>OR</sup>/<sub>FW</sub> and nestlings were not there.  
Both parents obvious and agitated.

<sup>OR</sup>/<sub>FW</sub> <sup>4</sup>/<sub>2</sub> vs 2031-08910

Bill length 9.20

Bill depth 5.92

Bill width 4.56

Wing length 59.28

Tail length 58.66

Tarsus 17.64

Mid toe 18.41

Hallux width 12.88

Molt no

Brood patch no but not as many belly feathers as

stage

stage

fat some skin, no fec

clown 8.90 x 5.70

wt 19.0g

remarks squeaked

Sagehen Creek Field Station

20 May Unmarked ♀ Banded <sup>OR</sup>/<sub>YL</sub> <sup>RD</sup>/<sub>FW</sub>

egg 1 4

egg 2

L 20.72

L 20.12

W 15.51

W 15.29

wt 2.5

wt 2.5g

egg 3

egg 4 L 20.21

L 20.35

W 15.01

W 15.37

W

wt 2.5g

wt 2.5

warm eggs all quite translucent

~~PK~~ PK  
RO  
PK  
FW



mtg. 9  
1989

# Journal

92

## Sycamore Creek Field Station

20 May ♀ banded last time with nest BL/FW GP/OR

egg 1

L 20.49

W 15.47

wt 2.5g

egg 2

L 22.08

W 15.53

wt 2.5g

egg 3 faint possible 1 marked on it now 3

L 21.61

W 15.05

wt 2.25

markings worn off re-labeled

all are warm & chirping, scared off nest

collected leaves of pestfish forid. Very thick glossy  
no translucence

FW/OR BL/YL ♀ ad FW/OR RD/OR ♂

3 eggs in dead grass 10" above H<sub>2</sub>O

egg 1

L 18.60

W 15.49

wt 2.0g

egg 2

L 18.74

W 15.68

wt 2.25g

all eggs  
quite  
warm

all are not in translucence

egg 3

L 18.76

W 15.59

wt 2.5g

Flagged dead pine 10' south of grass clump with nest





with, J  
1989

# Journal

93

Sagehen Creek Field Station,

20 May nest of PK/FW <sup>BE</sup> 1/2 ♂ & Thik. ♀ is unmarked  
4 eggs warm

egg 1

L 19.37

W 15.34

wt 2.0g

egg 2

L 19.73

W 15.59

wt 2.25g

egg 3

L 19.50

W 15.48

wt 2.50g

egg 4

L 19.29

W 16.00

wt 2.25

## remarks

med to heavy shell. warm. 2 Branch of nest tree was flagged  
Nest is at Base of willow most visible from W side of  
Bush inside the clump of willows to a clearing. I flushed  
off the ♀. She made no sound so sipping. I thought  
it was the ♂ but soon after ♀ flushed he called  
from across the creek. ♀ did not start sipping until  
I actually saw the nestbird moved toward it.

5:17pm BK/FW <sup>RO</sup> 1/4 was involved in a chase with 1 unmarked  
♂ ad 3rd yr indiv now he is changing from an ~~evergreen~~ green





Smith, J

1989

## Journal

94

## Sagehen Creek Field Station

21 May

R/FW

OK/BL6<sup>+</sup>W/O<sup>+</sup> ♀In willow ~ 1 1/2' off ground, in a crotch  
well obscured  
from view

egg 1

L 18.85

W 15.34

wt 1.50g

egg 2

L 18.48

W 15.33

wt 1.50

egg 3

L 19.40

W 15.59

wt 1.75g

egg 4

L 18.62

W 15.44

wt 1.00g

remarks - cold but ♀ had been flushed

off for 20 minutes

very cold this am ~ 700 hours 35-40°, per se/cry h

off. ♀ at ♂ both agitated. ♀ went back to nest

while I had all eggs. These were light to medium shell thickness

GR GR/FW ♂ nest in willow <sup>crotch</sup> near where I banded ♂ it is  
PK ~ 1' off the ground 4 eggs

egg 1

egg 2

egg 3

egg 4

L 21.11

20.65

20.30

20.70

W 15.90

15.77

15.91

15.77

wt 2.0g

2.0g

2.0g

2.0g

remarks, med shell

light shell

very light

med/light

all very warm

—

111



with J  
1985

# Journal

98

## Sagehen Creek Field Station

21 May

4 eggs of <sup>OR</sup>FL <sup>RB</sup>FW ♀

egg 14

egg 2

egg 3

egg 4

L

20.68

19.97

20.32

20.13

W

15.44

15.32

15.33

15.05

wt

2.50g

2.50g

2.50g

~~2.25~~ 2.25

remarks

very light shell

light shell

very light shell

very light shell

3 eggs of BL/FW GR/OR to transfer FW/OR

1

2

3

♀

L

20.65

22.05

21.57

W

15.46

15.51

15.05

wt

2.75

2.75

2.25

3 eggs from FW/OR RB/OR ♂ and FW/OR BL/LC to BL/FW

1

2

3

L

18.44

18.65

18.58

W

15.47

15.65

15.59

wt

~~2.50~~ 2.50

2.50

2.50g

Windy so weights may be off. Thick to med shell  
I used the false canary eggs to hold BL/FW's  
clutches. When I returned to the adults were off nest  
agitated chirping, ♂ called. But nest cup  
was warm and egg felt warm too. It is  
quite sunny but windy so I don't think it  
would have held the heat for 20 minutes.

M

1

71

22  
17



Sant 18

1985

Journal

96

Sagehen Creek Field Station

21 May

PK/FW BK/or ♂'s nest with unmarked ♀  
4 warm eggs

	1	2	3	4
L	19.32	19.65	19.44	19.28
W	15.35	15.60	15.47	15.22
wt	1.50g	<del>2.0</del> 2.0g	2.25	2.50
remarks	med	med	Thick	Thick

Base of nest is ~5" off ground in crotch of  
a willow. Very windy so weights may be off.

Y/FW BK/GR ♂ unmarked ♀ nest 4 eggs warm  
on ground at base of lodge pole pine

	1	2	3	4
L	18.60	19.03	19.18	19.73
W	15.16	15.48	15.28	15.36
wt	2.0g	2.0g	2.0g	2.0g

remarks: puffed, need to heavy thicken

♀ sat on canyon eggs, heated them! Baked Y/FW BK/GR

Nest of Y/RD wh/FW ♂ just at 1st station E of  
station. 5 warm eggs: flushed unmarked ♀.

	1	2	3	4	5
L	19.06	18.29	17.86	19.20	18.51
W	14.28	14.12	15.21	14.34	14.36
wt	2.0g	2.0g	2.0g	2.0g	2.0g

remarks: medium light very light light light/med

less brown than others

nest on  
away





uth, J  
1989

# Journal

97

Runnel Lee Res., 2mi NW Lafayette, Contra Costa Co, Calif 1300  
22 May Fast Friday (19<sup>th</sup>) spotted FW/RO<sup>wh</sup>/PK in Bachan's  
50 yds S of PK/FW<sup>BL</sup>/BK's Hemlock patch. He was  
sipping like there was a ♀ on eggs but I saw none.  
I checked BK/FW's nest but no eggs and no sign  
of her. <sup>BL</sup>/FW has moved up into hemlock just  
N of mulberry. There is a new ♂ in the E pond  
penis who is also calling across the Road (E  
50 yds) in Bachans. Saw PK/FW<sup>BL</sup>/PK ♂ and BK/POT  
calling in hemlock sounded like fledglings were in hemlock  
N of nest male sipped quite a bit. Saw <sup>BL</sup>/FW<sup>OR</sup>/<sub>Y</sub>  
♀ at mulberry. ♂ is calling from mulberry.

23 May Spotted <sup>BL</sup>/FW<sup>RO</sup>/BK in Poison Oak S of mulberry he was  
consorting with his ♀ <sup>BL</sup>/FW<sup>OR</sup>/YL who was also with  
an unmarked ♂. Found <sup>BL</sup>/FW<sup>OR</sup>/YL's nest in stinging  
nettle again! 4 eggs warm. Bright sunny mild morning.

	1	2	3	4
L	19.52	20.01	19.94	19.24
W	16.53	16.08	16.11	15.87
wt	2.75g	3.00g	3.00g	2.75g
	Lightshell	Lightshell	Lightshell	Lightshell

24 May Saw fledgling FW/X<sup>BL</sup>/PK at E of end of Bachan  
patch. Also spied his father <sup>BL</sup>/FW<sup>RO</sup>/BK and  
mother in the patch as well as ♂ and ♀ BK/FW's  
and PK/FW and <sup>BL</sup>/FW BK/PK!





Smith, J.  
1989

# Journal

97

Russell Tr Res, 2mi NW Lafayette, Contra Costa Co, Calif., 6300 ft.

24 May

Fam & nest of  $\frac{GR}{FW}$   $\frac{OR}{BK}$  ♂ and ♀  $\frac{GR}{FW}$   $\frac{RD}{OR}$

4 warm eggs. 2' up in milk thistle. Nest seems quite loose.

	1	2	3	4
L	19.23	19.48	18.37	19.57
W	15.50	15.84	15.90	15.66
wt	2.50g	2.50g	2.50g	2.50g
remarks	light shell	medium/light	light	light
windy, sunny morning (cool) 45°				

25 May

0700 hours spotted fledgling  $\frac{FW}{L}$   $\frac{BK}{BK}$  in hawthorn

near nest. Possibly both fledglings in that area

♀  $\frac{BL}{FW}$   $\frac{OR}{L}$  went back to four eggs after the first co with her

caught in the net for too long yesterday. I checked the nest

yesterday at noon and she had let them get stored and

this am they are warm will add BL to number 1 egg

to avoid transfer confusion.  $\frac{L}{FW}$ 's have nest with one

nestling ~1 day and 2 unpipped eggs will switch there.

Flushed

$\frac{BL}{FW}$   $\frac{OR}{L}$ 's eggs

1 BL

2 BL

3 BL

4 BL

L

19.52

20.04

19.94

19.11

W

15.70

15.85

16.10

15.83

wt

Light/med

2.50g

2.50g

2.50g

2.50g

light

light

light/med

Flushed

$\frac{GR}{FW}$   $\frac{RD}{OR}$ 's

eggs 2

3

4

L

19.32

19.48

18.40

19.57

W

15.52

15.81

16.02

15.67

wt

2.50g

2.50g

2.50g

med.

remarks

med.

med/light

medium





with 1989

Journal

Russell Tree Res. 2 mi NW Lafayette Contra Costa Co. Calif 1300 ft

25 May

PK/FW BK RD ♀ eggs

	5	6
L	20.13	20.25
W	15.37 29	16.06
wt	2.0g	2.50g

remarks heavy  
pipped tiny  
accident with pen

heavy shells are very fragile  
may have cracked  
with calpen pressure

all eggs into portable hot pack styrofoam carrier at 0843 hours  
T=31°C. Arrive Trucker 1226 hours Temperature of  
portable incubator = 32°C. 1303 hours eggs removed  
to transfer to nests T=31.5°C.

Sagehen Field Station

1416 hours transfer complete. Egg 5 hatched en route  
I put hatchling with cracked shell into nest. Hatchling was  
begging for food. Time from portable incubator to nest was 1 hour

\* Transfer #1

From Russell 2 eggs from PK/FW BK RD ♀ and BL BK ♂  
were transferred to ~~the~~ Sagehen nest of YL RD wh/FW ♂ and unmarked ♀  
5 eggs in YL RD wh/FW's nest labeled with a wh

	1 wh	2 wh	3 wh	4 wh	5 wh
L	18.94	18.23	17.90	19.20	18.47
W	15.18	14.11	15.15	14.42	14.44
wt	1.75g	1.50g	2.00g	1.75g	1.75g
remarks	med/heavy	light	light	med/light very different markings much more blue at pt than others	med/heavy





th, 8

1989

# Journal

99

## Sagehen Creek Field Station

25 May \* Transfer #2

From Russell 4 eggs from BL/FW OR/YL ♀ and unmarked ♂  
to Sagehen RD OR BL ♂ and WH/OR ♀ for 4 eggs flushed ♀  
Sagehen RD FW eggs are numbered and RD too

	1 RD	2 RD	3 RD	4 RD
L	18.83	18.56	19.40	18.66
W	15.13	15.42	15.65	15.49
wt	1.00g	1.00g	1.50g	0.50g
remarks	med/light	medium	medium	med/light

\* Transfer #3

From Russell Four eggs of BR/FW OR BK ♂ and RD OR ♀ to Sagehen  
BK/WH RD FW ♂ and OR/YL RD FW ♀ 4 eggs warm did not see ♀ heard ♂  
Sagehen eggs marked 1-4 and R

	1 R	2 R	3 R	4 R
L	20.65	20.09	20.13	20.23
W	15.42	15.41	15.36	15.08
wt	2.50g	2.25g	2.25g	2.25g
remarks	med/light	medium	med/light	medium

At 1453 hours all sagehen eggs are in the incubator  
set at 32°C with 1/2 cup of water in bottom left  
corner for humidity.





Smith, J.  
1989

# Journal

900

Sagehen Creek Field Sta. 3 mi NW Hobart Mills, Nevada Co., Calif 6300ft

25 May

$\frac{4}{1}$  FW  $\frac{BK}{BR}$  ♂ and  $\frac{PK}{RD}$  ♀ 4 nestlings look like they hatched this

morning it is 1544 hours now sunny, little wind ~60°F.

	RT leg 1	left leg 2	RT wing 3	left wing 4
Belly length	2.37	2.38	2.28	2.22
eye	2.40	2.59	2.24	2.23
width	2.60	2.25	2.12	2.16
wing length	7.15	6.26	6.51	5.46
tail length	not emerged	not emerged	not emerged	not emerged
tarsus	5.69	5.69	5.40	5.59
midtoe	7.68	7.90	7.24	7.17
hallux/obla	4.56	4.99	4.72	4.15
molt	downy	downy	downy	downy
age	day old	day old	day old	day old
fat	some belly, fore, armpits	same	same	mostly belly, little armpits, fore
cloaca	2.73 x 1.98	3.54 x 2.89	2.71 x 1.39	3.28 x 1.71
remarks	eyes not open	eyes not open	eyes not open	eyes not open
wt	3.0g	3.0g	2.50g	2.0g

4 nestlings set of  $\frac{PK}{FW}$   $\frac{BK}{BR}$  and unmated ♀





Smith, J  
1989

Journal

101

Sagehen Creek Field Station, 3mi NW Hobart Mills, Nevada Co, Calif 96300

25 May

PK FW BK  
or's nestlings

~~PK~~ ~~FW~~ ~~BK~~  
or's

left leg 2

right toes 3

left leg 4

Bill length

2.59

2.92

2.63

2.94

depth

2.30

2.70

2.67

2.84

width

2.19

2.59

2.65

2.83

wing length

8.63

7.74

8.64

9.11

tail length

0.35

not out

0.75

0.99

tarsus

7.08

7.04

7.70

8.20

mid toe

10.60

10.87

11.06

11.66

hallux to end

5.81

6.04

6.26

~~3.91~~ 5.99

wt

4.50g

5.0g

5.50g

1.8 ~~5.0~~ 5.0g

molt

outer 41°s just barely out  
downy

outer 31°s just out  
downy

downy  
1st 71°s just out

very downy  
1st 71°s out

age

2 day?

2 days

2-3 days

2-3

fat

some belly stored, fat, crop prob some

same

same

claw

2.17 x 1.29

2.34 x 1.93

2.78 x 1.25

3.01 x 1.92

remarks

legs too small to band  
eyes barely slit

eyes closed

eyes closed

eyes closed

Found nest of pair S of PK GR FW ♂ in low willow near stream's edge, & believe both ♂ and ♀ are unmarked.

4 eggs were cold but I had flushed the ♀ 20 minutes before.

1

2

3

4

L

19.39

18.68

19.20

19.37

W

14.35

14.79

14.66

14.62

wt

2.25g

2.0g

2.0g

2.0g

remarks

light/med

light

light

light

153.28  
153.28  
06 5 6



th, 8

1989

# Journal

102

Sagehen Creek Field Station, 3 mi NW Hobart Mills, Nevada Co, Calif 6300 ft.

25 May collected nest of ♂ <sup>GR</sup>/<sub>PK</sub> <sup>GR</sup>/<sub>FW</sub> and unmarked ♀, there was egg #3 left in it only. NO signs of adults. #3:  $L = 20.34$ ,  $W = 15.88$   
 $wt = 2.50$  g. Nest was 306.56 mm ab the ground in the crotch of a willow. 104.87 mm = outer width, outer depth = 75.85 mm, inner width 69.78 mm, inner depth = ~45 mm

Checked incubator at 1755 it was 33°C so turned down.

Checked at 1910 30°C so turned up. 31°C = T at 1946.

T = 30°C at 2130 hours turned up to 32°C.

26 May T = 31.5°C of incubator. 0719 hours ~~at~~ egg #6 is just hatching in <sup>wh/FC</sup>'s nest  
 stage 5 6

Bill length 2.42  
 length 2.12  
 width 1.89

too young to measure

Wing length 6.92  
 tail length not out  
 tarsus 6.03  
 midtars 7.64

hallux length 4.19

noft downy

fat belly & amp; some, not much here

CLM 196 x 1.46

wt 2.0 g

remarks

eye eye not open today

Banded ♀ <sup>BL</sup>/<sub>BR</sub> <sup>wh</sup>/<sub>FW</sub> 2031-08954. At 0850 hours

incubator T = 32.0°C. 1000 hours Sagehen eggs into portable incubator T = 31.8°C





Smith, J  
1985

# Journal

183

Russell Lake Reservation 2 mi NW Lafayette, Contra Costa Co. Calif. 1300 ft.

26 May

As soon as I took styrofoam incubator outside the T dropped to 27°C, but in 30 minutes it was up to 30°C and when I reached Russell at 1409 hours T = 31°C. Transfer complete at 1429 hours. Flushed off BL/FW<sup>OR</sup>/YL and GR/FW<sup>RD</sup>/OR but did not see PK/FW BK/RA. GR/FW ♀ had eliminated 1 house sparrow egg leaving 3. PK/FW had also eliminated 1 house sparrow egg leaving 1 and her nestling. BL/FW ♀ was sitting on 4 house sparrow eggs (warm). I collected PK/FW's 1-2 day old nestling <sup>(J15132)</sup> and left 5 eggs!

27 May

Observing FW/BL's area looking for fledglings, heard ♂ ad. ♀. ♀ is acting like she is on eggs. Set out seed for last but saw Brown Towhee feeding on it. Checked transfer nests. All are doing fine. Flushed BL/FW<sup>OR</sup>/YL off 4 warm eggs. Flushed PK/FW BK/RA off 4 warm eggs, one was missing did not want to take extra time to see which egg. Flushed GR/FW<sup>RD</sup>/OR off 4 warm eggs. Found the missing house sparrow egg lying on a milk thistle leaf it could have fallen out of nest and landed there w/o ♀ pushing it out. Saw lots of activity at FW/BL's looking like numerous fledglings, ♀ quite obvious perhaps feeding nestlings. Observing FW/LR at cattail pond, he was calling with ♀. Could not see bands for positive id because I forgot my binoculars today. The 20 eggs from sagehen are quite bottom heavy, perhaps chick is positioned at one end getting ready to hatch. At heron patch N of mulberry looked like ♀/FW was still singing but not attached.





with, J

1989

## Journal

104

Russell Creek Res. 2 mi NW Lafayette, Contra Costa Co., Calif. 1300 ft.

29 May Recorded vocalizations and found 2nd nest of FW/BL <sup>PK</sup> / <sup>TR</sup> ♂  
ad FW/BL <sup>YL</sup> / <sup>OR</sup> ♀. 4 warm eggs

	1	2	3	4
L	19.13	19.38	18.39	18.63
W	15.47	15.04	14.96	14.99
wt	2.00g	light/med	2.00g	2.00g
remarks	light/med	2.00g	light	med/light

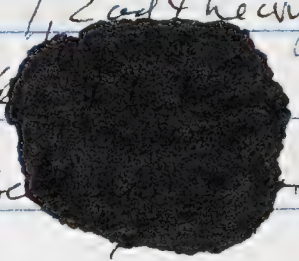
nest is  $\approx 4\frac{1}{2}$  ft up in a Pine tree crotch. Flushed

♀. Windy, cold  $\sim 50^\circ\text{F}$  and sunny. Nest is even with the

top of my belly button. 0910 hours transfer nest @ Chuck

Flushed ♀ BL/FW <sup>YL</sup> off of 4 warm eggs shells looking heavy.

♂ heard ♀ BL/FW <sup>RD</sup> / <sup>OR</sup> chirp at 4 warm eggs 1, 2 and 4 heavy,

3 is medium. Did not see or hear BK/FW <sup>BK</sup> / <sup>BK</sup>  <sup>BL</sup> / <sup>BK</sup>

Her 4 eggs (#5 is missing) were cool at nest cup for

cool. Saw her <sup>BK</sup> / <sup>RD</sup> at 0955 hours came up 20' W of

nest she and male called.

31 May Checked nest of <sup>BK</sup> / <sup>FW</sup> <sup>RD</sup> / <sup>OR</sup> at 1117 hours 2 hatched  
young egg #3 still looks medium, #4 is heavy. They look  
like they hatched yesterday. Flushed ♀? off nest

colony off by 0.03

	1 Rtl leg	2 left leg
Bul leg th	2.30	2.36
depth	2.47	2.37
width	2.28	2.33
Tail leg th	not out	not out
Tarsus	4.87	4.71
Mid toe	6.93	7.39
hallux w claw	4.25	4.11
Cloaca	2.40 x 1.89	3.21 x 2.66
Fat	belly, arms some	same
molt	downy	2.00g
wt	1.75g	6.29g
wing length	5.78	eyes closed
remarks	eyes closed	





Smith, J.  
1989

Journal

105

~~Russell~~ ~~June~~ ~~2 mi NW Lafayette, Contra Costa Co., Calif., 1300 ft~~

31 May

Nest check of <sup>PK</sup>/<sub>FW</sub> <sup>BK</sup>/<sub>RD</sub> ♀ Four Luke warm eggs, nest  
cup felt warm, heard adult. sip. Eggs 1, 2 are  
heavy and 3 is med/heavy and 4 is medium.

Nest check of <sup>BL</sup>/<sub>FW</sub> <sup>OR</sup>/<sub>YL</sub> ♀ 4 warm eggs all heavy shell,  
but feel hollow and lop-sided

1 June

Nest check <sup>BL</sup>/<sub>FW</sub> <sup>OR</sup>/<sub>YL</sub> ♀, 4 warm eggs, heavy shells. <sup>PK</sup>/<sub>FW</sub>'s  
nest empty saw ♀ rear nest. <sup>GR</sup>/<sub>FW</sub>'s nest 2 nestlings and 1 egg (#3)  
both parents seen, ♀ finished off nest 0749 hours

<del>Birds</del>	1st leg	2nd leg
Bill length	2.46	2.61
depth	2.15	2.08
width	2.11	1.84
<sup>wing</sup> <del>head</del> length	7.56	6.70
tail length	—	—
tarsus	5.54	5.48
mid toe	7.70	7.73
hallux w/ claw	4.07	4.46
molt	downy	downy, feathers trunk apparent on back
fat	Much belly and avms	same
chore	2.05 + 1.46	2.74 + 2.05
wt	2.50g	2.50g
remarks	eyes closed	eyes closed

Saw <sup>YL</sup>/<sub>FW</sub> <sup>BK</sup>/<sub>PK</sub> with unmarked ♀ at W end of  
reddish patch S of metal pole ~ 10' in from  
road. ♀ was carrying dead grass and going  
down into thistle "falty" to ♂.





Smith, J  
1987

Journal

106

Sagehen Creek Field Station, 3 mi NW Hobart Mills, Nevada Co, Calif 96044

1 June

Nest check of RD/FW <sup>wh</sup> or ♀ ad <sup>RD</sup> <sup>OR</sup> <sup>FW</sup> <sup>BL</sup> ♂

Eggs 1, 2 - medium, 3 - med/light  
and 4 is heavy. They were warm but  
I did not see the adults.

Nest check of ♀ unmarked S of <sup>PK</sup> <sup>OR</sup> <sup>FW</sup>  
in low willows near stream 4 warm eggs  
with heavy shells. Flushed ♀.

Nest check of BK/wh <sup>RD</sup> <sup>FW</sup> ♂ ad <sup>OR</sup> <sup>FW</sup> ♀

1: 3-4 are med/heavy and 2 is heavy, flushed  
♀ off warm eggs.

Nest check at <sup>PK</sup> <sup>FW</sup> <sup>OR</sup> <sup>FW</sup> ♀ ad <sup>BL</sup> <sup>FW</sup> <sup>PK</sup> <sup>BL</sup> ♂

2 large nestlings no sign of other egg. Female  
flushed off. Nestlings banded <sup>BL</sup> <sup>FW</sup> <sup>YL</sup> <sup>BK</sup>  
ad <sup>BL</sup> <sup>FW</sup> <sup>RD</sup> <sup>wh</sup>

Nest check at <sup>YL</sup> <sup>RD</sup> <sup>wh</sup> <sup>FW</sup> ♂ ad <sup>BL</sup> <sup>FW</sup> ♀, only one  
nestling, cannot see any markings of color on  
tarsi, no sign of other. Banded <sup>OR</sup> <sup>PK</sup> <sup>FW</sup>

Nest check at <sup>YL</sup> <sup>FW</sup> <sup>BK</sup> <sup>OR</sup> ♂ ad <sup>PK</sup> <sup>RD</sup> ♀, 4  
well-feathered nestlings banded.

Nest check at <sup>FW</sup> <sup>OR</sup> <sup>RD</sup> <sup>OR</sup> ♂ ad <sup>FW</sup> <sup>OR</sup> <sup>BL</sup> <sup>YL</sup> ♀ only  
one nestling no sign of 2 other eggs or fledglings.  
Banded 2031-08962 ♂ ad <sup>OR</sup> <sup>FW</sup>.

Cought unbanded ♀ S of <sup>PK</sup> <sup>OR</sup> <sup>FW</sup> ♂ banded  
her 2031-08963 <sup>YL</sup> <sup>wh</sup> <sup>OR</sup> <sup>FW</sup>

2 June

Collected <sup>YL</sup> <sup>FW</sup> family as control ad banded ♂  
<sup>YL</sup> <sup>FW</sup> <sup>PK</sup> <sup>OR</sup> That came into house ♀ after I  
had netted ♂.





with 19

found

107

1989

Sagehen Creek Field Station, 3 mi NW Hobart Mills, Nevada Co., Calif 6300 ft

2 June

Nest checked at <sup>wh</sup>/FW ~~at~~ leg.

1 nestling FW (#2031-08957) left leg and GR/PK it.  
both adults chirping.

Bill length 4.22

length 3.54

width 2.90

wing length 25.40

tail length 2.10

tarsus 17.19

mid toe 18.35

hallux claw

fat muscle full, some stored

wt 14.08

molt 3rd 10 not out

back  $\frac{2.56}{5.71}$

belly  $\frac{1.05}{7.09}$

remarks ♀ flushed off as I approached

does not seem as robust as Sagehen nestlings

Nest checked at FW/GR <sup>RD</sup>/OR ♂ and B/Y/L ♀

one nestling Banded 2031-08962 seen it leg

Bill length 4.66

length 3.91

width 3.76

wing length 29.06

tail length 4.03

tarsus 16.28

mid toe 20.47

hallux w claw 11.24

fat some fat, 1, h + am

wt 16.00g

molt 10 3rd  $\frac{0.62}{19.65}$

back  $\frac{7.97}{10.32}$

belly  $\frac{6.47}{10.90}$

remarks

Nest checked at <sup>#3</sup> Traufa checked <sup>OR</sup> <sup>RD</sup>/FW ♀

one hatchling from egg #1, painted it leg Black

wt = 1.75g. Eggs 2-4 are warm and heavy.





with, 8

1989

# Journal

108

## Sagehen Creek Field Station

2 June

~~Bill length~~  
width

~~Bill length~~

Nest checked at BYCW's, ♂ chirping 1435 hours  
2031-08955 2031-08956

Bill length  
depth  
width

3.94  
3.33  
3.58

4.42  
3.31  
3.56

wing length  
tail length  
tarsus  
middle toe

27.40  
3.25  
15.55  
19.49

29.52  
3.42  
16.72  
20.69

culmen/depth

11.01

11.46

fat

much fat, some cream

much fat, some sternum

wt

14.06

15.5

molt

31° not out, Back  $\frac{2.92}{7.36}$ , belly  $\frac{2.71}{5.55}$ ; Bird 10  $\frac{0.57}{16.88}$ , back  $\frac{4.52}{8.11}$ , belly  $\frac{4.78}{9.54}$

remarks

claw

3.81 x 1.76

4.22 x 2.67

Nest checked at 46/44<sup>th</sup> FW, 5 eggs, new sm  
looked like combined, A took it and left 4 heavy  
warm eggs.

Nest checked at 40/44<sup>th</sup> FW 4 warm eggs all heavy  
except #3 (medium)





Sta, J  
1989

Journal

109

Sagehen Creek Field Station, 3 mi NW Hobart Mills, Nevada Co., Calif. 96308/6

3 June Nest check at transfer nest #3, <sup>on</sup> <sup>to</sup> ~~in~~ <sup>FWP</sup>

3 nestlings, one egg unhatched #2 (med/heavy)

10/10 hours

	1st leg	2 left leg	3 both legs
Bill length	2.26	2.17	2.46
depth	2.39	2.54	2.28
width	2.23	2.12	2.35
wing length	6.13	5.48	6.24
tail length	not out	not out	—
tarsus	4.91	5.34	5.03
mid toe	6.94	6.85	7.21
hallux	4.46	3.75	4.45
molt	downy	downy	downy
fat	much, belly gone	some	much arms and belly
wt	2.0g	2.0g	2.0g
remarks	eyes closed	eyes closed	eyes closed
age	1 day	0 day	0 day

Nest checked 6<sup>1</sup>/FWP

2031-08955

56

Bill length  
depth  
width

wing length  
tail length  
tarsus

mid toe  
hallux  
wt

stimulated to rain  
started  
meaning

14.50g

16.0





1985

Journal

110

Sagehen Field Station 3 mi. NW Hobart Mills, W. Nevada, July 6300 ft

3 June Saw <sup>FW/BK</sup> <sup>GL</sup> ♂ with unmarked ♀ carrying food. Marked area where I thought the nest was. Saw <sup>GL/FW</sup> <sup>OR</sup> ♂ w/ unmarked ♀ acting like on eggs.

4 June collected Trump #1 chick, could not get adults - nest chick at 'BL/FW',

2031-08955

2031-08956

Belly length	4.20	4.90
depth	3.74	3.83
width	3.23	3.64
Wing length	35.17	35.48
tail length	7.15	7.36
Tarsus	16.96	17.11
mid toe	19.53	21.45
hind wing web	11.59	13.23
wt	15.08	16.09
weight	$\begin{array}{r} 3.26 \\ \text{Brd} 24.53, \text{back} 6.44 \\ 12.96 \end{array}$	$\begin{array}{r} 3.61 \\ 25.45, \text{back} 9.32 \\ 15.65 \end{array}$
fat	self fec alarms	much fec, some belly and sternum
remarks	eggs open	eggs open
clones	5.33 x 2.25	4.55 x 3.97







Smith, J.  
1989

# Journal

117

~~Sagehen Creek Field Station, 3 mi NW Hobartville, Nevada Co., Calif 6300~~

4 June	Nest check at Transfer #3 <sup>or</sup> <sup>RD</sup> <sub>FW</sub> , 4 nestlings			
	1st lg	2 legs	3 both	4 none
Bill length	2.558	2.70	2.55	2.13
depth	2.49	2.43	2.41	2.11
width	2.60	2.32	2.51	2.02
wing length	7.43	6.81	6.92	4.83
tail length	Not out	-	-	-
tarsus	6.07	5.83	5.69	4.31
mid toe	9.01	8.36	8.21	5.89
hallux	4.71	4.70	4.87	3.64
wt	3.50 g	3.0 g	3.0 g	1.50 g
closure	3.05 x 1.64	3.30 x 1.67	1.70 x 1.13	2.75 x .92
remarks	eye slit not open	3 same	3 same	eye not open
fat	same	← wing, belly med	same	arms same

nest cup felt very wet (it had rained for 4 hours

This morning but adult was sipping.

Nest check at <sup>FW</sup> <sup>or</sup> <sup>RD</sup> <sub>FW</sub> ♀, 4 wet eggs but 1 flushed off female. Nest check at <sup>RD</sup> <sub>FW</sub> transfer #2  
3 wet eggs with puddle of water. I left them but  
heard a lot of sipping, who knows?

Yesterday found nest of 2 unmarked indivs just where

I cross over Sagehen at Beaver dam, flagged 4 warm eggs.

Too overcast to candle the eggs. The <sup>6</sup> <sub>FW</sub> nest was

empty, no sign of fledging or adults.





Smith, J.

## Sonval

112

1989

Russell Yucca 2 mi. NW Lafayette, Contra Costa Co., Calif., 6300ft

4 June

Next check of Transfer #3, 2 bulgypellied youngsters  
 mom sitting on even when I got w/in 3'. No egg (#3)  
 seen. 1816 hours

1 Rt leg

2 Left leg

Bill length

3.48

3.48

depth

2.82

3.08

width

2.82

3.13

wing length

15.68

14.66

tail length

not out

=

tarsus

12.09

10.98

middle

15.52

13.61

heel length/can

8.74

9.03

not

Bd 10  $\frac{0}{4.21}$ , Back, Belly $\frac{0}{2.95}$  T. 61 0.92

fat

much fat

much fat, catanpts small bell,

claw

3.24 + 2.03

4.22 + 2.44

wt

9.50g

11.0g

Remarks

eyes slit but closed

eyes slit open entirely

Banded

left leg ~~not~~ RD

left leg green

 $\frac{1}{1,2}$ 

Nest check at Transfer #2 BL/FW, 2 eggs have shell  
 removed from  $\frac{1}{4}^2$  at tip (small end), #4 sand  
 like bean (hard) is jiggling inside, #3 is OK.

6 June

Nest check at Transfer #2 BL/FW the pipped eggs look  
 all dried out, I'm taking one in to RES for  
 consultation. ♂ and ♀ still vigilant and eggs  
 still warm.





Smith, J  
1939

# Journal

113

Remond Lee Res. 2 mi NW Lafayette, Contra Costa Co., Calif 1300 ft

6 June Nest check at transfer #3, 2 warm nestlings  
Both adults chirping 1151 hours

RD left by

GR left by

Bill length	4.22	4.59
Depth	3.55	3.44
Width	3.51	3.45
wing length	24.03	22.06
tail length	1.92 not measured	1.55
tar sum	15.37	14.33
mid toe	18.02	17.93
hallux width	11.67	11.21
molt	3rd 10 <sup>0</sup> $\frac{1.56}{12.50}$ , $\frac{5.52}{3.18}$ back, belly - 6.13	$\frac{0}{11.52}$ , $\frac{1.84}{6.26}$ , $\frac{1.42}{3.99}$
feet	much fatter, some shoulders	same
claw	2.88 x 1.76	3.74 x 2.05
wt	12.50 g	13.50 g
remarks	eyes completely open but droopy	same

Nest check at FW/BL <sup>11</sup> for ♀, 4 cold eggs both parents sleeping though, all eggs (-4) were light/med. No further progress since 29 May. The eggs had that top-sided feel (top heavy) to them like the Transfer #2 eggs in BL/FW's nest.

8 June Nest check at Transfer #3 female still keeping warm left in 2 uncracked eggs. Took egg #1 of RD embryo was evident ~ 4.5mm long. Shell thickness = .22  
Check of Transfer #3, nest on ground ♂ was chirping, ♀ unseen but heard her (?). No sign of young yet from parents behavior they may still be in the twitters. Nest check at FW/BL 4 cold eggs no sign of ♀ or ♂ or their fledglings.





with, J  
1989

# Journal

114

Russell Tree Res. 2mi NW Lafayette, Contra Costa Co., Calif. 1340 ft

9 June

0807 hours found what I believe to be the nest of  
Y/FW BK/PK ♂ and unmarked ♀, I have although seen  
♀ followed by unmarked ♂ I thought was with B/FW ♀.  
3 warm eggs, positioned in a nest in milk thistle  
about waist height. I will not mark eggs for fear  
I have been puncturing them with the pen

	1	2	3
L	20.27	19.98	19.35
w	15.94	15.56	15.12
wt	2.50g	2.50g	2.00g
	med/light	med	med

2 cool eggs in B/FW transfer #2. Both heavy. Saw  
fledgling FW/x B/PK in Harlock patch of nest. Saw GR/FW BK  
♂ call from Thistles near trashet nest.

Bait trapped fledgling 1451-1452 ~~PK/BK~~ from PK/FW B/PK ♂ and RD/BK ♀.

This fledgling was really youngster of Fw/Bl's

At ~~last~~ pond saw OR/FW B/RD with unmarked ♀. ♀ was

chirping near the NW corner in the ratchin' ~~was~~ ♂ was sitting on  
W side in Ruddyish.

Nest of OR/FW B/RD ♂ and unmarked ♀ is on W side of road in fuller Bachais  
well concealed by leafed branches. 4 warm eggs, unmarked

	1	2	3	4
L	20.21	20.19	19.77	19.52
w	15.36	15.55	15.38	15.43
wt	2.50	2.50g	2.50g	2.50g
remarks	med	light/med	med	med





Smith, J.  
1989

Journal

115

Russell Lake Res., 2 mi NW Lafayette, Contra Costa Co., Calif 1300ft

9 June Nest check at <sup>FW</sup>/<sub>BL</sub>'s - no sign of any Song Sparrows, 4 cold eggs.

10 June 4 warm eggs (flushed unmarked ♀) of <sup>or</sup>/<sub>FW</sub> <sup>BL</sup>/<sub>RD</sub> into Styrofoam incubator  $T = 30^{\circ}\text{C}$  time = 10/14 hours, put dog away around nest and put in 4 cold House Sparrow eggs. Moved hot packs around  $T = 33.5^{\circ}\text{C}$  at 1020 hours.

Sagehen Creek Field Sta., 3 mi NW Hobart Mills, Nevada Co., Calif 6300ft

10 June Arrive Sagehen 4:30 pm to see traffic jam at Donner. Nest check at transplant #3 only one wing (nestly - 7 days old) in nest, ♂ heard calling near nest no other signs. 4 big chicks at <sup>or</sup>/<sub>FW</sub>'s nest and 4 nestlings at unmarked pair E of <sup>or</sup>/<sub>FW</sub> w/ 11 banded with FW nest and 11 on left. Not big enough for FW so just YL

	YL	YL	RD	YL	BL	YL	GR	YL
Bill length	3.67		3.57		3.81		3.83	
depth	2.99		2.85		3.45		3.27	
width	3.05		3.20		3.53		3.26	
Wing length	15.63		18.82		15.77		14.02	
tail length	not out		—		—		—	
tarsus	12.01		12.37		11.34		11.06	
midtars	17.30		17.87		18.39		17.11	
h. culmen w/ claw	10.24		9.75		9.78		8.96	
molt	3rd 1 <sup>st</sup> $\frac{0}{5.14}$ , $\frac{0}{1.79}$ , $\frac{0}{1.97}$		$\frac{0}{2.42}$ , $\frac{0}{1.77}$ , $\frac{0}{2.07}$		$\frac{0}{4.46}$ , $\frac{0}{1.62}$ , $\frac{0}{2.36}$		$\frac{0}{3.69}$ , $\frac{0}{0.84}$ , $\frac{0}{0}$	
fat	much fat, none, belly		same		same		much fat, some on neck & belly	
wt	11.0 g		12.50 g		11.00 g		10.50 g	
Remarks	eyes slit not open		eyes slit, open slightly in anterior		same		same	





1989

# Journal

116

Sagehen Creek Field Sta., 3 mi NW Hobart Mills, Nevada Co., Calif. 6300ft

10 June 1847 hours finally got incubator working (I remember to unscrew the top springs). It is now dry bulb 90°F = 33°C and wet bulb 74°F so relative humidity is 47%

put eggs in styrofoam war 32°C. 1023 hours

Dry bulb 89°F and wet bulb 75°F making relative humidity 52%

11 June 0529 hours Dry T = 87°F wet = 65°F, rel humidity = 30%

0606 hours Dry bulb T = 90°F wet bulb = 74°F rel humidity = 47%

1020 hours Dry Bulb T = 90°F, wet bulb 74°F rel H = 47%

I flipped the egg over. 1610 hours caught the egg at dry bulb 98°F and wet 85°F making rel H = 70%. Sun had come thru window and heated up incubator ~30 minutes. Eggs feel limp.

Replaced in incubator 1700 hours dry bulb 90°F wet = 75°F rel humidity = 50%  $\frac{24}{24} \frac{04}{04} \frac{04}{04}$

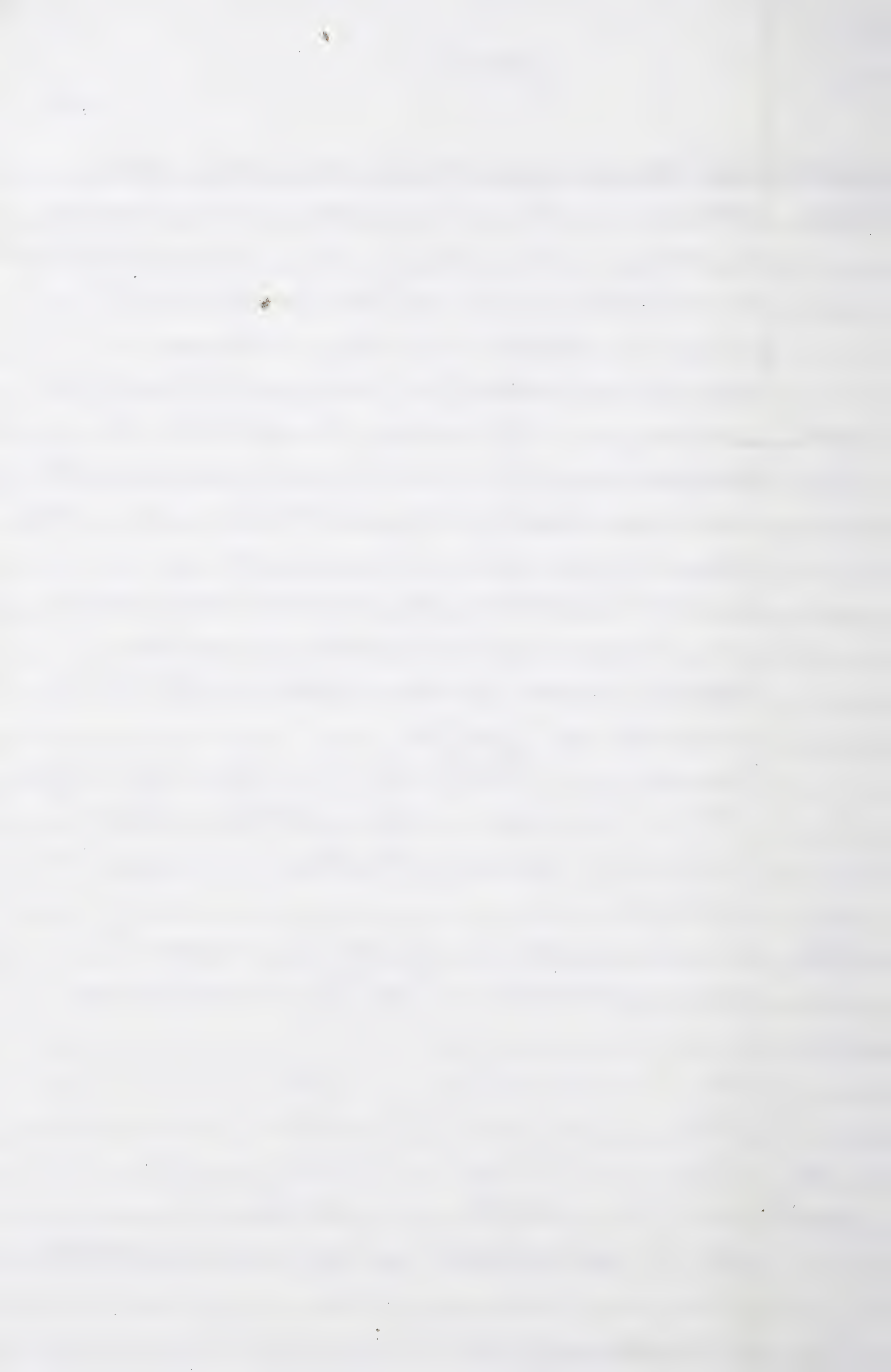
Banded young at ~~1600~~ <sup>1600</sup> for ♀'s nest 4 young - all have at least one FW. 2011 hours incubator dry bulb 90°F, wet = 76°F rel H = 53%. 2138 hours holding steady at 90°F dry, 76°F wet 53% rel. H.

12 June 0916 hours dry bulb = 91°F, wet bulb = 73°F, rel humidity = 43%

0933 hours found 2nd nest of <sup>BL/BR</sup> <sup>WH</sup> FW 3 were warm eggs

	1	2	3
L	18.66	18.76	19.38
W	14.83	15.05	15.66
wt	2.00g	2.00g	2.00g
remarks	light	light/med	light/med

nest is at base of lodgepole pine just SW of foot bridge.





th, 8  
1989

Journal

117

Sagehen Creek Field Sta, 3mi NW Hobart Mills, Nevada Co, Calif 6300ft

12 June

Transfer #4 4 eggs (measured 9 June #1-4 post-measure)  
there are eggs of <sup>2nd nest</sup>  $0\frac{1}{2}$ FW  $B\frac{1}{2}$ OR  $\delta$  of Russell, were transplanted  
to nest of PK/FW  $BK/OR$   $\delta$  marked  $\delta$ . These 4 eggs  
are #1-4 (painted not pinned) 0930 hours

	2	1	3	4
L	19.66	19.24	18.98	18.38
W	15.88	16.00	15.99	16.61
wt	2.50g	2.50g	2.50g	2.50g
remarks	Med/light	light	med/light	oblong, light shell
2nd nest just 10ft S of 1st nest in same willow clump 6" off ground in notch of willow				

Transfer #5 Incomplete only to Russell  $0\frac{1}{2}$ FW  $BK/OR$   $\delta$

From Sagehen 4 eggs of  $6R/PK$   $6R/FW$   $\delta$  at unmarked  $\delta$   
2nd nest is 10ft E of 1st nest 12" off ground in notch of willow

	#5	#6	#7	#8
L	20.77	20.90	21.12	21.29
W	16.10	15.79	16.30	15.54
wt	2.50g	2.50g	2.50g	2.25g
remarks	heavy	heavy	heavy	med/heavy

Into styrofoam 1034 hours  $T=33^{\circ}C$ , At 1447 Arrive at

Russell Ice Res. 2mi NW Lafayette, Contra Costa Co, Calif 1300ft

12 June Styrofoam  $T=32^{\circ}C$ . Transfer #4 to  $0\frac{1}{2}$ FW complete - 1452

Flushed  $\delta$  off home Sparrow eggs and replaced with  
 $1\frac{1}{2}$ FW's eggs 1-4. Transfer #5 complete flushed  $\delta$  unmarked  $\delta$

	1	2	3	put here in $B\frac{1}{2}$ FW's
L	20.31	19.93	19.35	nest remained unharmed
W	15.88	15.63	15.10	transplanted eggs 3 & 4.
wt	2.50g	2.50g	2.00g	Did not hear or see $\delta$
remarks	heavy	heavy	med/heavy	Both eggs cool.





with, 9

1939

# Journal

118

Russell Tree Res. 2 mi. NW Lafayette, Contra Costa Co. Calif. 1300 ft.

15 June

0708 hours, nest check at  $\frac{b^L}{FW} \frac{OK}{YL}$  sitting on  $\frac{4^L}{FW}$ 's ♂  
3 eggs (transfer). The eggs are cold and nest is moist. Heard  
no sipping. I think they were abandoned. Saw  $\frac{FW}{Red}$  back  
in Bacharis S of  $\frac{PK}{FW} \frac{BL}{BK}$ . Also saw unmarked bird in  
S end of  $\frac{PK}{FW}$ 's heronlock.

Nest check at transfer #5, empty nest! No sign of  
either adult 0925 hours. Caught unmarked fledgling in  
faded haze in small turtle patch just across the  
road (E 10') from willow. It may be 1st fledgling of  
 $\frac{b^L}{FW}$ 's (it is J15147).

With  $\frac{FW}{RB}$  there were at least 2 unmarked fledglings in  
Bacharis S of  $\frac{PK}{FW}$ .

16 June

Collected old nest of  $\frac{4^L}{FW}$  (J15122 + 123) it was  
mid thigh height off the ground in a Berry Bramble

17 June

Found 3rd nest of  $\frac{b^L}{FW} \frac{OK}{YL}$  ♀ it is on E edge of willow  
clump ~5' N of her 1st nest. 4 warm eggs

	1	2	3	4
L	20.55	18.77	19.56	19.39
W	15.63	16.30	15.52	16.01
wt	2.50	2.508	2.508	2.508
remarks	light	light/med	light	light/med

Dropped away and ~~flushed~~ nest, The nest is 1' W  
of a tall red plant in some blackberry ~1 1/2' off  
ground.

Nest check at Transfer #4, flushed ♀ off 4  
warm eggs - #3 is heavy shell (did not crack  
the nest) put down very ang.





with 8

1989

# Journal

119

Russell Lake Res. 2 mi NW Lafayette, Contra Costa Co., Calif 1300 ft.

17 June Checked the territory of unmarked ♂ at E end of Russell Road (turn around circle). Looks like fledglings (at least 2).

18 June Found X <sup>FW</sup>/<sub>PK</sub> with a family, at least 2 fledglings still being fed. Saw what looked like unmarked ♀ carrying winged insects. Lots of lippy buzzing but very little chirping. The family is in a draw on the S side of road 40 yds from edge of road. Lots of PD, bay tree (30') and live oak 25' high. <sup>FW</sup>/<sub>OR</sub> <sup>WK</sup>/<sub>PK</sub> ♂ has moved 2 over the hill to the draw so sharp-shin where <sup>FW</sup>/<sub>PK</sub>'s used to be.

19 June In Bacharis S of <sup>PK</sup>/<sub>FW</sub> <sup>BL</sup>/<sub>PK</sub>'s territory I saw FW <sup>BL</sup>/<sub>PK</sub> fledgling from Marlberg bush in very close contact with FW <sup>PK</sup>/<sub>PK</sub> fledgling. In the same area I saw ♂ <sup>PK</sup>/<sub>PK</sub> and his long lost ♀ <sup>PK</sup>/<sub>FW</sub> <sup>WK</sup>/<sub>OR</sub>!

21 June Nest check at <sup>BL</sup>/<sub>FW</sub>, all 4 eggs gone! Heard singing, put in 4 House Sparrow Eggs in hopes they might return. Nest check at Transfer #1 4 warm eggs, heavy.

Sagehen Creek Field Station, 3 mi NW Hobart Mills, Nevada Co., Calif 6300 ft

21 June 1800 hours, nest check at Transfer #9, flushed unmarked ♀. Eggs have not hatched, are warm. I broke #3(?) it was smelly, no sign of embryo. Nest check at <sup>BL</sup>/<sub>BL</sub> <sup>WK</sup>/<sub>FW</sub> warm eggs (heavy) flushed ♀. Found 2nd nest of <sup>FW</sup>/<sub>PK</sub> <sup>PK</sup>/<sub>OR</sub> and <sup>WK</sup>/<sub>OR</sub> <sup>BL</sup>/<sub>PK</sub>, 4 warm eggs flushed ♀ out of 1 1/2' hollow nest 6" off marshy bottom.





Smith, J

1989

## Journal

120

Sagehen Creek Field Station, 3 mi NW Hobart Mills Nevada Co. Calif 96300

21 June

4 eggs of FW/BL's

1

2

3

4

L

19.18

19.84

18.06

19.01

W

15.36

15.77

15.23

15.49

wt

heavy 2.0g

2.00g

1.50g

2.50g

remarks

cracked w/  
culic

heavy

heavy

heavy

one by hole

2nd nest is 20 yds W of 1st. almost in a straight line  
 2nd nest for B/FW's in scrubby willow patch  
 15 yds SW of 1st nest, 4 warm eggs, flushed ♀.

1

2

3

4

L

21.19

20.24

20.91

20.13

W

15.72

15.28

15.20

15.34

wt

2.50g

2.50g

2.50g

2.50g

remarks

too dark to candle. Saw ♂(?) B/FW PL/BL

22 June

2nd nest of Rd/FW<sup>wh</sup> for ♀ and Rd/BL ♂ 45 yds SW  
 of 1st in willow - 2' off ground, 3 warm eggs, 1 downy  
 (white) young

1

2

3

Rd/BL

L

18.49

18.43

18.46

W

15.64

15.46

15.62

wt

1.50g

1.50g

2.00g

3.00g

remarks

heavy

heavy

heavy pipped

very cold this morning parents may be off





Smith, J  
1989

# Journal

121

Sagehen Creek Field Sta., 3 mi NW Hobart Mills, Nevada Co., Calif. 6300ft

22 June

Found 2nd nest of BK/wh Ad/low OT ad OR/wh Ad/low ♀

Two new eggs, flushed ♀ 15 yds S of 1st  
dore to edge of creek 5' from edge of creek.

1 2 3 4

L

21.19

20.89

21.39

21.33

W

15.71

15.30

15.49

15.33

wt

2.00g

2.50g

2.50g

2.50

remarks

med

med

med/light

med

Found OR/wh Ad/low ♂ & ♀ building 5' N of 1st nest  
Collect w/air pop. trapped ~~partly~~ fledgling at  
Ad/low's

Russell Tr. Res., 2 mi NW Lafayette Contra Costa Co., Calif 1300ft

25 June

Checked Tranfer #5, ants all over nest, 2  
eggs pipped saved egg #2 (only 3 eggs total.)  
The chicks inside the eggs had well-developed  
bills hard to say what happened. Saw ♀ ad ♂  
near fence on side of road opposite to the 2nd nest.

26 June

Looked for X Ad/low 2nd nest ♀ was not on eggs  
she would call (clump) about every 10 minutes  
like she was with nestlings but was not coming  
up from a consistent spot.

26 June

0640 hours it is very quiet. Saw at E most  
end of road. Berwick's Wrens at Tonhees.

Ad/low ♂ (?) I think is singing. I have not seen with  
♂ or ♀ for sure. No sign of fledging.





th, 9

1989

Journal

122

Sagehen Creek Field Sta, 3mi NW Hobart Mills, Nevada Co. Cal. (3000ft)

8 July

5 banded 2 young at nest of BK/WH RD/FW ♂ and OR/YL RD/FW.

9 July

Transferred 5 eggs from RD/FW OR/BL ♂ and RD/FW WH/OR ♀ to BL/FW GR/OR ♀ and BL/FW PK/BL ♂. There are both 3rd nests

RD eggs: unmarked to avoid pipping Teepee around nest

	1	2	3	4	5 cowbird
L	18.84	19.00	18.39	18.73	saved
W	15.71	15.56	15.36	15.76	for later use
wt	2.04g	2.50	2.00g	2.05g	
remarks	heavy	heavy	heavy	heavy	

RD's 2nd nest had only 2 unhatched eggs in it, no sign of fledgling

BL eggs: unmarked put teepee around the nest

	1	2	3	4
L	20.80	21.66	20.59	cowbird
W	15.84	15.63	15.76	
wt	2.50g	2.50g	2.50g	
remarks	very light	very light	light	

10 July

checked RD/FW ♀ was on with teepee so was FW/OR's ♀ in car on young. BL/FW ♀ was nowhere to be seen and eggs were stone cold.

Found nest of FW/PK GR/OR with 2 eggs to transfer to FW/OR WH/PK eggs

I put a screen Teepee around FW/PK's and put FW/OR's in a coffee can with netting on top making a Δ in the center.

L	18.6g	20.78	2 looks like cowbird but will use it	
W	15.00	15.68	added an Old House sparrow egg to complete clutch for transfer	
wt	2.00g	2.00g		
remarks	med/heavy	heavy		

10/29/00 10/29/00 10/29/00 10/29/00 10/29/00  
10/29/00 10/29/00 10/29/00 10/29/00 10/29/00



with, J

1985

# Journal

123

Sagehen Creek Field Station, 3mi NW Hobart Hills, Nevada Co, Calif 6300ft

10 July FW/OR's four eggs

	1	2	3	4
L	19.95	19.47	19.54	18.93
W	15.52	14.41	15.08	14.73
wt	2.50g	2.0g	2.0g	2.00g
remarks	heavy	heavy		

Russell Lee Res, 2mi NW Lafayette, Contra Costa Co, Calif 1300ft

14 July Collected FW/OR ♂ saw no sign of mate or fledgling  
he is molting heavily. He is JIS 150

16 July Collected OR/FW BL ♂ 2031-089512 Fledgling of GR/FW but reared by OR/FW.

18 July Sagehen Creek Field Sta. 3mi NW Hobart Hills, Nevada Co, Calif 6300ft

Nest check at FW/OR 3 abandoned eggs; no singing heard ♂ call infrequently did not see ♀. The Teepee had not been tampered with. Nest check at FW/OR's coffee can only had empty nest. No sign of ♀ or young may have heard ♂ once or twice. Nest check at FW/OR, flushed ♀ off of 4 eggs, heard ♂ sing. Nest check at FW/OR's heard ♂ sing, no sign of ♀.

19 July Egg switch between FW/OR WH/OR ♂ and FW/OR GR/OR both ♀'s unmated. Put nests in coffee cans with initially no mesh. This is FW/OR's 3rd nest and at least 2nd for FW/OR.





with 19  
1989

Journal

124

Sagehen Creek Field Station, 3 mi NW Hobart Mills, Nevada Co., Calif 96049

19 July 3 eggs of FW/BK for transfer (left unmarked)

	1	2	3
L	21.46	21.16	22.25
W	15.49	15.68	15.50
WT	2.50g	2.0g	
remarks	med	med	very light

3 eggs of FW/OR for transfer (left unmarked)

	1	2	3
L	19.32	19.24	19.27
W	14.73	14.66	14.31
WT	med/hoary	med	med/hoary
remarks	2.0g	2.0g	2.0g

20 July Nest check of  $\frac{FW}{PK} \frac{46}{62} \sigma^7$  with unmarked ♀, left only one broken at added egg, ♀ ad ♂ still in area, teepee still in one piece. Nest check at  $\frac{FW}{OR} \frac{WH}{PK}$ , ♀ not on egg but both ♂ ad ♀ cackling near nest. ♀ appears to go to the car and then dash off, inside of car window at 0827 hours. Temperatures at mid-day have approached 90°F, I believe the eggs will be in the coffee cans during the time it takes the ♀ to habituate.

Found nest of (at least 2nd since fledglings are in the area)  $\frac{WH}{FW} \frac{PK}{RD} \sigma^7$  ad unmarked ♀, did not fiddle with nest. Eggs cool but ♀ in area chirping

	1	2	3
L	22.49	21.86	21.05
W	15.80	15.82	15.69
WT	2.75g <del>2.75g</del>	2.50g	2.50
remarks	med	med/light	med





Smith, J

1939

# Journal

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Russell Lake Res, 2mi NW Lafayette, Contra Costa Co, Calif 1300ft

23 July Banded adult, caught in Humlock patch (small)  
just south of large milk Thistle,  $Y^L/FW$   $BL/Y^L$  2031-08976  
Caught unbanded fledgling near Mulberry  
banded 2031-08971  $FW/Y^L$   $GB/Y^L$

Sagehen Creek Field Station, 3mi NW Hobart Mills, Nevada Co, Calif 6300ft

28 July Collected fledgling 2031-08990 left + red right.  
Nest check at  $FW/OR$   $WH/PK$  one nestling 2 unpipped eggs.  
One of the eggs was out of nest in can so I put  
it back in. Nestling is ~ 2 days old rt leg black

Bill length 2.30

Length 2.62

width ~~3.20~~ 2.38

wing length 6.72

tail length not out

Tarsus 5.15

Mid toe 7.54

hallux w/ claw 4.34

wt. 2.50

nestlings seems listless

Nest check at  $WH/PK$   $FW/RO$  ♂, 3 warm eggs no sign of adults, eggs  
all heavy shell.

Russell Lake Res, 2mi NW Lafayette, Contra Costa Co, Calif, 1300ft

1 Aug Banded  $FW/BK$   $BL/GR$  2031-08974, in bait trap in thistle patch

3 Aug Caught - 1431-14519 in bait in thistles. This is nestling of  
 $PK/FW$  reared by  $BL/FW$  (JIS 150)





with g

1939

# Journal

126

Sagehen Creek Field Station, 3 mi. W. of Hart Mills Nevada Co. Calif 1300 ft

5 Aug FW/OR Red/x banded at Coffee can nest  
~~FW/OR~~ WH/FW PK/RO ♂ 2 nestlings banded FW/x WH/x

Russell Tree Res., 2 mi. NW Lafayette, Contra Costa Co., Calif 1300 ft

10 Aug Heard ♂'s singing at 0630 hours. Collected 1431-14517/  
 X left and BL/PK right <sup>JIS 156.</sup> This is fledgling of BL/FW's at Mulberry  
 tree. I collected it in a bait trap at hemlock patch  
 S of Milk Thistle. Also saw FW/x BL/PK in same spot.

12 Aug Collected 1431-14521 left + PK/BK right (JIS 157) + unbanded  
 JIS 158.

15 Aug Collected unbanded JIS 159 <sup>sf only</sup> at Mulberry Bush. Saw  
 ♀ BL/FW + FW/YL + FW/x BL/?.

17 Aug Collected ♂ PK/FW BL/BK (FWS 2031-08908) JIS 160. At  
 Hemlock where 1st nest was

18 Aug Collected ♀ BL/FW OR/YL JIS 163 (2031-08933) parent of JIS 156  
 Shot at Mulberry where nests were.

Captured 2031-08901 GR/FW YL/BL at hemlock patch 35 yds  
 S on road from Mulberry. Re-measured and weighed

Bill length 8.97

Wing 5.77

width 5.17

Wing length 52.74

Tail length 53.72

Tarsus 17.51

midtars 18.40

hatching w/CLW

Clower 2.06 + 2.06

molt 1st 5/10's in pin, All but 5 tail feathers

lost much

remains left 1st toe  
 deformed

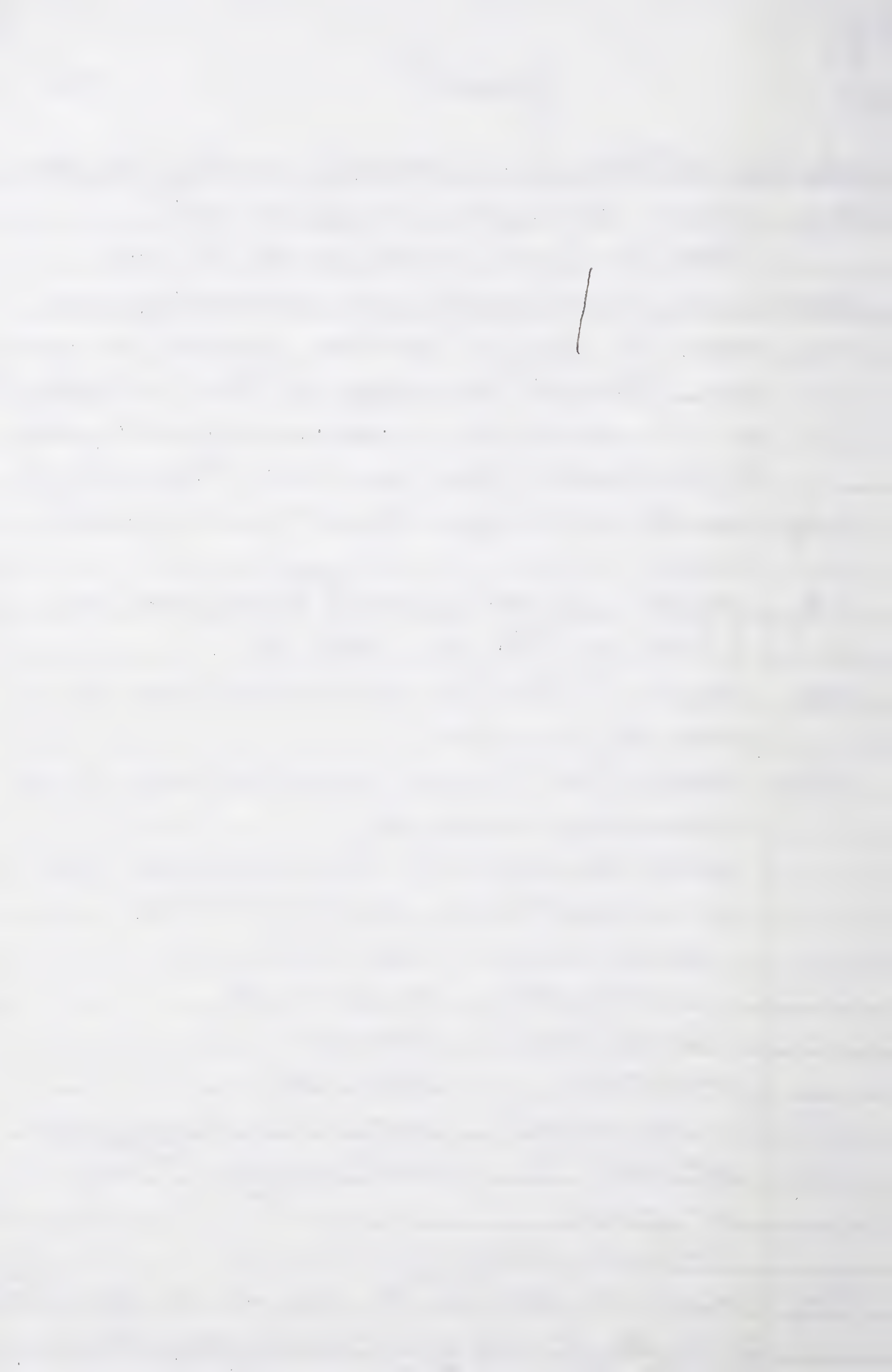
completely in pin  
 belly

wt 19.00 gm

Broodpatch present

21 Aug Collected 2031-08936 PK/FW BK/RO JIS 164 + 2031-08902 GR/OR FW/BK

JIS 165 both at S edge of Milk Thistle near feeding station. Also  
 saw RD/FW YL/BL in same area





Ph. J  
1989

# Journal

127

Russell Tree Res. 2 mi NW Lafayette, Contra Costa Co., Calif. 1300 ft.  
23 Augst Collected 2031-08904 ♂ <sup>B<sup>L</sup>/FW</sup> <sup>RD/GR</sup> at M.I.K

Hindle, JIS 166 - Mate of JIS 163 + Parent of JIS 156.

Sagehen Creek Field Station, 3 mi NW Hobart Mills, Nevada Co., Calif. 6300 ft

9 Sept Collected JIS 172 (2031-08949 <sup>B<sup>L</sup>/FW</sup> <sup>GR/OR</sup>) ♀ was E of  
nest site only creeks ~ 3/4 mile in former territory of <sup>FW/PK</sup> <sup>Y<sup>L</sup>/B.P.</sup>  
JIS 173 ♂ (1431-14510 <sup>FW/OR</sup> <sup>wh/PK</sup>) shot near territory. JIS 174  
♂ (2031-08926 <sup>GR/FW</sup> <sup>OR/Y</sup>)

12 ~~Sept~~ <sup>October</sup> No specimens left at station. All leaves on the willows  
are gone. It snowed last week and shortly most willows  
dropped their leaves then.

Albany, Alameda Co., Calif  
21 Oct at noon on a bright sunny day mother and I headed  
out on 580 W to the Richmond - San Rafael bridge  
to 1015 to Mill Valley. stopped at Smith + Hawkis  
Garden Center of E. Blithedale Avenue. From there  
we headed N on 101 to Santa Rosa. We went west  
out of ~~Santa Rosa~~ Cotati we took 116 west to Sebastopol.  
Just N of Sebastopol we stopped at Russian River  
vineyard where they bottle Topolos wine. Their  
u/pino Zinfandel was excellent (Gold Medal winner)  
nice dry rosary wine. also had restaurant hotel  
nice but we didn't stay. we spent the night with  
B+B from PEO on Stoetz Road off of Harrison  
Grade Road.

1 mi N of Occidental, Sonoma Co., Calif. 233 ft  
For dinner mother + I went to The Blue Heron  
in Dunsmuir Mills. Moscow Road at Route 116





The  
Blue Heron  
Restaurant & Tavern

TOM HARGADON  
Owner

(707) 865-2225

Moscow Road at Route 116, Duncans Mills, CA 95430



with, J

# Journal

128

1 mi N of Occidental, Sonoma Co., Calif. 238ft

We had a very nice meal for \$50. So get there we took the Bohemian Hwy north out of Occidental for <sup>took ~ 20-30 minutes b/c of winding</sup> ~ 10 miles to Monte Rio. At Monte Rio we went west on 116 for ~ 5 miles. The restaurant is on the S side of road in a small mall area with a small motel and General store.

22 Oct We left our B+B at 0815 hours headed N to Monte Rio again on the Bohemian Hwy. We went west on 116 toward Jenner. Saw seals on sandbar. Drove N on to Myers Grade Rd just south of Fort Ross Hwy is closed at Fort Ross due to falling rock. On Myers Grade Road we found a local glass blowing artist, mother bought paper weight for Renée (\$20) on our return trip. We drove on Myers Grade until it led us back to Hwy near the Kruse Rhododendron park (we did not stop since it was not the right time of year for flowers.) We continued N on Hwy past Stewart's point to the Sea Ranch. We stayed at the Sargeant's B+B 5 miles north of Sea Ranch Lodge on Bossa's Reach #72 (on W side of road). Mary Jean was nice PEO lady, hostess is Gynecologist. They cabin was separate from their main cabin with nice view of ocean. Not much beach to walk on but lots of neat houses. We arrived there at 1030 hours. After checking in with the Sargeant's we took off S on Hwy to Stewart's Point. We went E out of Stewart's Point to Headstrong ~ 2 hour drive very pretty drive.





with, 9  
1939

# Journal

129

The Sea Ranch, 5 miles N of Stewart Point, Sonoma Co., Calif 100 ft

22 Oct

The drive starts out in Coastal Redwood Canyon. Then turns up in altitude to drier scrub oak and Madrone and finally ends in wine country. We stopped at Johnson's Vineyard (terrible wine) and at another part (E) of Johnson. I think it was Redwood Vineyards which had a very nice Gewürztraminer (\$16 for a split.) We took (128) out of Eurekaville to St. Helena. We stopped at Henry Evans botanical print shop on Pine Street (go left  $\frac{1}{2}$  blk off of 128). Pine St is one of the 1st streets in Town (at the Police station). We then went ~~to~~ N on (128) to do some wine tasting. Most vineyards were closed at 4:30 pm. We stopped at Folie à deux. A small vineyard N of Krug on E side of road. Very nice 1936 Chardonnay. We tried to go to Sterling Vineyard (looks like elaborate terr with a train) but they were closed at 4:30. Went to Beringer which is S of Folie à deux on (128) just before turn on W side of Road they were open until 5:00 pm. Wine was average, but had lovely gardens and restaurant looked nice. We then went back to St. Helena S on 128 to Dansk shop which is on W side of road on S side of town. We ate a wonderful Italian dinner at Tra Vigne which is directly across the street from the Dansk store. I had pork ravioli + mother had chicken. They had great bruschetta and breads. Reservations were a good idea. We ate at 6:00 and then headed back to Sea Ranch. Long day





with, J  
1989

# Journal

130

~~The Sea Ranch Bnldy N of Stewart's Point, Sausalito, Calif. 100 ft.~~

23 Oct Fueled up at gas station in Stewart's Point. Drove  
N on HWY 1 to Sausalito. Small town the hotel smelled  
very musty not appetizing at all. We found a nice  
cal cuisine catering with small lunch + dinner service  
just on N side of Sausalito on HWY 1 it is on W side  
of HWY 1. I think it was called Cook's Catering.  
We got some very nice bread, veal, ribs, +  
dessert of killer chocolate cake. Had soup there  
for lunch. North of Sausalito we came upon a  
fancy B+B St. Orres it is ~ 4 miles N of  
Sausalito on E side of road see Turkeys it looks  
quite Russian. Had beautiful restaurant with  
dinner service (\$27/person). Looked quite nice. We  
returned to Sea Ranch and walked along the beach.  
Mother had never played with kelp before, she really  
enjoyed watching the tide come in. Too windy for her so  
we didn't stay long. Saw Willets and Western gulls.  
Sanderling at Black Turnstone. Had supper of fancy  
catering and drank on Chardonnay from Folie à deux.

24 Oct left Sea Ranch at ~ 1000 hours drove down HWY 1  
to Myers Grade detour, stopped at Starflower shop  
saw double rainbow just N of Jenner. Went on  
to Sir Francis Drake at Olema west E. to HWY 101  
into SFO. ate lunch at Port deli on Sanchez at  
16th and went to Joanie Chan outlet at 777 Florida  
St just 2 BIKS up <sup>(RT or S)</sup> from 16th. Got home ~ 3:00 pm  
had to take San Rafael bridge because of the earthquake on  
the 17th of October knocking out Bay Bridge.





with, J  
1989

# Journal

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## Tucson Pinal Co. Arizona

28 Oct For \$127 I flew from Oakland to Phoenix to Tucson on America West. Carla Cicero picked me up at airport at 3<sup>30</sup> pm. We went grocery shopping at Abco on Valencia Road (took a left out of Airport parking lot then another left onto Valencia went ~2 miles to grocery store.) We left Tucson at ~5<sup>00</sup> pm headed E on Interstate 10 to Willcox. We fueled up at Chevron just off Interstate big gasing area for trucks etc... Lots of motels and pizza hut (Motel 6, Best Western and Comfort Inn). We then went south of Willcox on route 186 ~39 miles to Coronado Natl forest. We stopped at Chiricahua Natl Monument hds but they were closed so we headed into the forest, stayed in one of the 1st campgrounds we came to. Lots of deer hunters and RV's everywhere! We arrived ~9<sup>00</sup> pm

## 29 Oct Coronado National Forest, Cochise Co. Arizona

Woke to the sound of Gray-breasted Jays. Very small hills and dark faces. Saw flock of Crossbills, some of much deeper than those at Sogeha. Got back on road toward Portal. Went past Onion saddle and stopped at Campsite just W of Silver Peak. We got three Plain thrice in that area saw 2 Bridled. In the afternoon we went further down road past Portal onto the Y80 going S to Price Canyon Road. Beautiful area of the Park. At end of Road is trail lead to Gabriel Peak (~6 miles) looked cool, deep canyon steep hills with PJs and Oaks. Had to





with J  
1989

# Journal

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## Coronado National Forest, Cochise Co. Arizona

29 Oct drive thru private ranch to get back into National Forest land. It looked like a bad place for Titi so we went back to Silver Lake area.

30 Oct We hiked all day 0730 hours to 1500 hours did not see any Plain Titmouse only Bridled. shot a

no Ring-tailed  
just past area  
in Hutton's.

Hutton's Vireo in dry river bend it was in Oak canopy, for Ned. We drove to Portal to get lights in camper fixed. We had turned out a fire.

Saw Cardinals + Curve-billed Thrashers at General Store. We then went N out of Portal toward Paradise. Camped in PJ along the road. Saw Sage Thrashers, Curve-billed and

31 Oct Crissal Thrashers. Lots of Plain Titmouse on W side of road, none bridled on Oakier Eastern side. We got 6 birds, ~~Saw Ring-tailed Cat in canyon~~ <sup>Oak and</sup> <sup>Yellow</sup> <sup>pine</sup>

1 Nov hunted same area again. I was on E side of road saw no Plain Titmouse, 3 Bridled. Mountain Bluebird, Sharp-shinned Hawk at a bear cub. Left in the late afternoon for Willcox. We stayed in Comfort Inn (\$45) ate at Pizza hut. Skinned Titi until 200 AM.

## 2 NOV Willcox, Cochise Co. Arizona

Had continental Breakfast in hotel lobby (Stale donuts, horrid coffee.) Headed W on 10 interstate for Yuma. Arrived in Yuma ~230 pm (~6 hours from Willcox). Called the refuge from Yuma (602) 783-3371. The manager Will Nydecker was on

Will Nydett<sup>Refuge</sup>er, Manager

Imperial Natl Wildlife Refuge

P.O. 72217

~~Martinez Lake~~ Martinez Lake, Arizona

85365

602-783-3371



with, J  
1989

133

## Journal

Yuma, Yuma Co. Arizona

2 NOV

vacation but the secretary Melody was expecting us. From Yuma the refuge is ~45 mi north. Take route 95 (16th st.) north out of Yuma (toward the Yuma proving grounds) <sup>20 miles</sup> exit on Martinez Lake Road. <sup>sign to refuge</sup> Go west (left) for ~15 miles where road will fork just after a speed limit sign. About 50 yds up on the right will be a sign to the refuge and a MCAS go right down this dirt road ~4 miles to where the road forks - signs point to right for refuge and straight to MCAS. Go right see refuge Hdq's and residences. Melody had left by the time we arrived ~3:30 but she said Bob + Eddy in the shop (around the back road of Hdq) would be able to help. The guys were working on a farm field to support the geese population. Eddy offered to take Carla + I out in a boat the next morning. He also directed us to a cattail marsh on Calif. side we could drive to that night. We took (95) south to Imperial Dam road (see Army installation with huge guns marking entrance). Go west down this road ~2 miles. Just over the dikes go right on Senator Wash Road <sup>1/2 mile</sup>. Then take Ferguson Rd to Ferguson Lake it is ~1 1/2 hour drive from the refuge. No song sparrows. Lots of cattails, with white-crowned + Lincoln's but no Song. They let us stay in refuge residences. They were very comfortable. Apartments 2 bedrooms with mattresses, bathroom, stove and big kitchen.

Ken Voigt, refuge manager  
Salton Sea National Refuge  
P. O. 120

Calipatria, Ca  
92233

619-348-5278



M, J  
1989

## Journal

(34)

Imperial National Wildlife Refuge, 20 miles N of Yuma, Yuma Co, Arizona

3 NOV

1000 hours

Eddy took us to Ferguson Lake in large Police boat. We found no sparrows. We returned to refuge and were outfitted with flat boat with 8 hp outboard. Again we went to hunting area along Ferguson Lake where there were many cattails saw and heard no song sparrows. We returned to refuge ~ 3:00 pm showered and headed west on Interstate 8 out of Yuma to El Centro, California. 7 miles W of El Centro we exited North onto Forrester Road. We went North thru Westmoreland. 3 miles north of Westmoreland see signs to refuge. At the sign that leads 3 miles to Salton Sea Natl Refuge arrow points straight the main road curves sharply to the right. ~~Do~~ Do not turn, stay straight. On left see ~~the~~ Unocal Geothermal plant. <sup>1 mile further is refuge</sup> The road will T at the refuge. Go left (S) for 25 yds to Hdq. Ken Voget is Refuge manager. Chris (from Humboldt / Yuma Ralls) and Ramon are refuge employees. We arrived 3 hours (7:30 pm) after we left the Imperial Refuge.

4 NOV Salton Sea National Refuge, 7 mi NW Calipatria, Imperial Co. Calif - 80k

We banded birds (Black Phoebe) with Ken, Chris and Ramon at 7:00 am. At 0800 hours Chris took us out in refuge vehicle. We walked along dike for 2 hours saw only dark song sparrows. Saw 2 Saltmies in cattails along dikes. Lots of Savannah + Orinorhynchus sparrows. At 1000 hours Chris drove us to Bruchard Bay. It is 1/2 N of intersection of Bruchard and Foulers road.





with, &

1989

# Journal

135

15 miles WSW of Calipatria, Brackend Bay Salton Sea, Imperial Co, Calif - 68 ft  
 4 NOV 15 miles WSW of Calipatria. This was a thick marsh  
<sup>water 2"-12" deep</sup>  
 of cattail + salt cedar on W side of road. The  
 E side had been drained + turned. Chris said it  
 was to be replanted soon. The sparrows were thick in  
 the salt cedar. They responded to playback (♂ sang and  
 many individuals "chirped") of Sage Sparrows. The  
 darker races wintering in the area did not respond  
 to playback vocally. I shot 3 saltators and 1 darker  
 form, Carla shot 3 saltators, in 3 1/2 - 4 hours of hunting.  
 We stayed in a 500 yd<sup>2</sup> area. The Salton Sea bordered  
 us to the N and we only ventured 200-400 yds to the S  
 and another 500 yds E into marsh. Heard SORA S and  
 saw American Bittern and Black-crowned night Heron  
 We left the refuge ~ 2:00 pm headed north out of Calipatria  
 on route 111 (past date farms and Dole fruit factory). Hitchhiked  
 up with Interstate 10 at Indio, we took I-10 to I-5  
 in L.A. Then north to Bakersfield, just before Bakersfield  
 we went W on (119) camped on BLM Land 3 miles  
 outside of Tugman. Saw K.T. fox, heard Burrowing owl  
 (Bernie Legton, id) yipping. Skinned sparrows until  
 2:30 AM.

5 NOV 20 miles NE of Taft, Kern Co., Calif 92 ft off of (119)  
 Left the area 0800 hours arrived Berkeley 1 pm.





J. I. Smith

1988-1990

Species Accounts





Smith, J

## Pygmy Owl

25 Feb 1990 Landels-hill Big Creek Reserve, San Lucia, Monterey Co., 200ft. elev.

Up ~200ft from creek bottom along the road from the house  
~1mi or 1 1/2 miles. The vegetation opens up as you climb the  
hill. I heard the owl giving the slow monotone "hoo-hoo-hoo"  
The sound of the "hoo" has an airy quality like a rubber  
doll when squeezed at the middle, but not so squeaky.

Quite a breathy tone. It also did a very melodic  
"rattle-cha" of a Golden-fronted Woodpecker. It came in  
~10yds from me when I imitated it with a whistle.

It is a diminutive owl approximately 5-6" in length. The  
body is stocky, but the tail is narrow (1" wide) for the breadth  
of its chest. It is a russet colored back, the belly is predominantly  
white with streaks of russet, the tail is dark with white bars  
when it flies it looks like a Varied Thrush --- broad body, long  
wings but short tail. When I called it in it perched ~12' high  
in a juvenile tan-bark oak(?). It then flew to a larger  
Redwood where it perched near the trunk (~1') at 20-25' high.

The ~~eyes~~ irises were bright gold surrounded by dark pupils.

The feet were yellow as well as the beak. The back is olive  
brown not quite russet, the white streaks start ~ at the tips  
of the 1<sup>st</sup>'s and continue up ~1" but then back looks solid.

Eyebrows are flecked white on brown. It perched in a oak  
~20yds from me (it is 20' up) it had its back toward me  
but would rotate its head all around to look at me  
as I called to it. Stellar's Jays were quite noisy in  
the area dwarfing the owl in comparison of body size.  
It has dark patches<sup>(2)</sup> on nape that look like eyes.





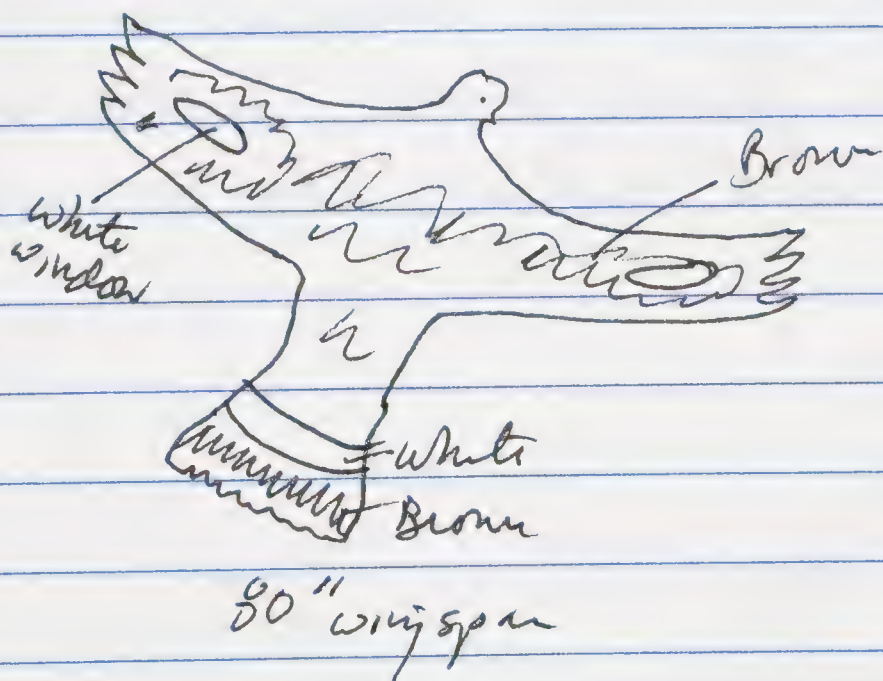
Smith, J

## Golden Eagle

15 December 1988 Zuni Indian Reservation McKinley Co. New Mexico

2:38pm spotted immature soaring over pond on NE side of town before Black rock.

2 Ravens were flying within 15' of the Eagle. The one Raven I observed pulled its leg away from the tail as if it were going to parachute down onto the eagle but in reality it only dropped to w/in 6-8'. The Golden Eagle was easily identified as immature by distinct white tail band ~3" from dark tip and white windows on underside of wings.







with, J

## Williamson Sapsucker

17 June 1938 Pinyon, Tahoe Natl. Forest 1.5 mi S of Sagehen Field Station,  
Nevada Co., Calif

Spotted a male and female. 1st saw ♀ thought it was flicker though breast was too yellow. It (♀) flew to dead pine at ~ 2' off the ground no sound. 5:00 pm, sunny day. ♂ came in after ♀ and soon flew to same dead tree. Back of male is very black. Had red on chin and white eyelids and wing patches a little smaller than a flicker. Large (1 1/2") strong feet.

(E. Pie Mesa)

16 December 1938 <sup>20 mi</sup> Indian Reservation, McKinley Co. New Mexico

Found this bird in top of 35-40' fir. It tap slowly, methodically and quite quietly. Sounded like picking at wood not pounding.





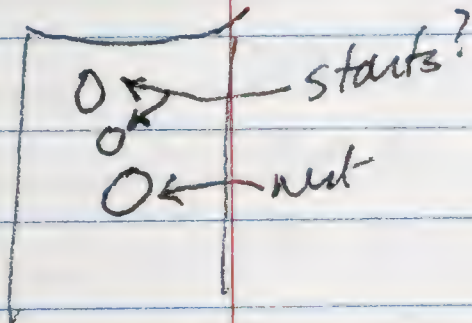
with, &

## White-headed Woodpecker

20 May 1989 ~~Sagehen Creek Field Station, Nevada Co., California 6300ft~~

In dead pine it was about 6' off ground it then flew  
up higher. head was brilliant white with Red nuchal  
patch. Back all Black. It was staying within 20yds  
of the creek flying from live to dead pines.

21 May 1989 Found nest hole. Plucked ♂? ~8' up there is  
a series of 3 holes. Hole Pine tree. Also  
seen to be House Wrens in the



vicinity. The nest tree is 40yds  
W of FW/GR <sup>RD</sup> nest at E ~ 75  
yds from PK/FW





Smith, J  
1993

## Harry Woodpecker

19 June

Penny Pines, 1.5 mi S of Saylor Creek field station Nevada Co, CA  
Harry male is making an incredible racket  
"Cha-cha-cha-cha" accelerating sometimes  
ending with a peck. He started this as  
I moved into an area of dead pines. and he  
has been following me for 15 minutes or at  
least he appears to be following me. He will  
call from about 25-30' off the ground. He  
corks his head around at me the way  
Golden-fronts used to do. He will put  
the tree b/t him and me and then peck around  
the corner. or he'll be on the tree sideways  
to me (i.e. I have side view) and he will pull  
his head away from the tree and turn it so one  
eye and then the other looks at me. It is 10:23 am  
I have the parabola with me perhaps he is nervous  
about that.





Smith, J

## Caliope Hummingbird

21 May 1989

Sagehen Creek Field Station, Nevada Co., California 6300 ft

0700 hours, 250 yds east of station in a Willow. Caliope's

will make a full circle ~~to~~ display like an Anna's

but they have a very smooth call a <sup>Buzz</sup> 7000000000 very  
high pitch and soft melodic not rappy. <sup>except at beginning</sup> The color

of the male's gorget fans out from the throat to  
the breast like paint brush strokes, very brilliant  
crimson.



Back is green

like an Anna's, side of breast appear rufous.





Smith, J

## Mountain Chickadee

18 June 1938 Sagehen Creek Field Station, Sierra Co., California

In a dead hollow pine tree 20' S of Sagehen Creek just west of the campground of the Natl forest ~ 500 yds. Found a nest of Mountain Chickadee 7' up in hole. Chickadee sounds like a house Black-capped and also much slower "Chick - adee - adee - adee"

White eye over eye is very thin hard to tell if it is just black underneath or in



When I walked past the tree at least one indiv bugged out of the hole and I felt the wind displace the hair on the top of my head.





Smith, J.

## Townsend's Solitaire

West Branch Main  
Gallatin

16 Decade  
1938

Zuni Indian Reservation, ~~Atlaton~~ Canyon, 6400 ft.

McKinley Co. New Mexico

Bright, sunny day ~50, light wind, high  
series clouds. Heard Townsend's solitaire  
as we descended into the canyon of sandstone  
and Dry Fir. The call note is a clear  
high tone (~c<sup>#</sup>) can be repeated in  
succession but not held long. Its call  
is a clear, brilliant "whoop-dee-doo!" rising  
at the end, dipping in pitch in the middle.  
John Trochet said that they hold territories  
all winter long so they will sing regularly.





Smith, J

## Northern Shrike

6 December 1988

Zuni Mts, McKinley Co. New Mexico  
In Pinyon-juniper savannah

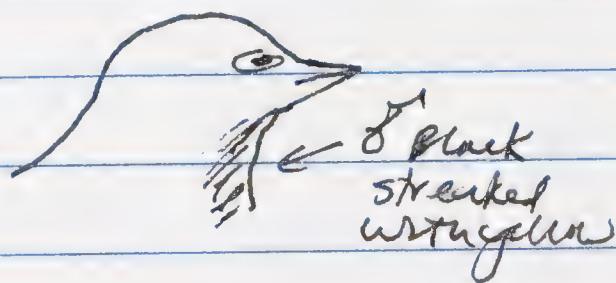
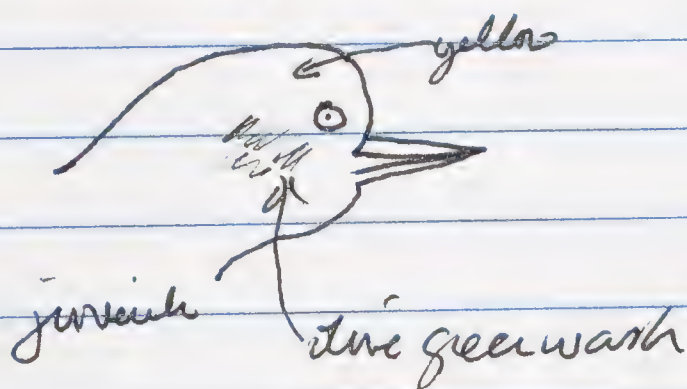




Smith, J

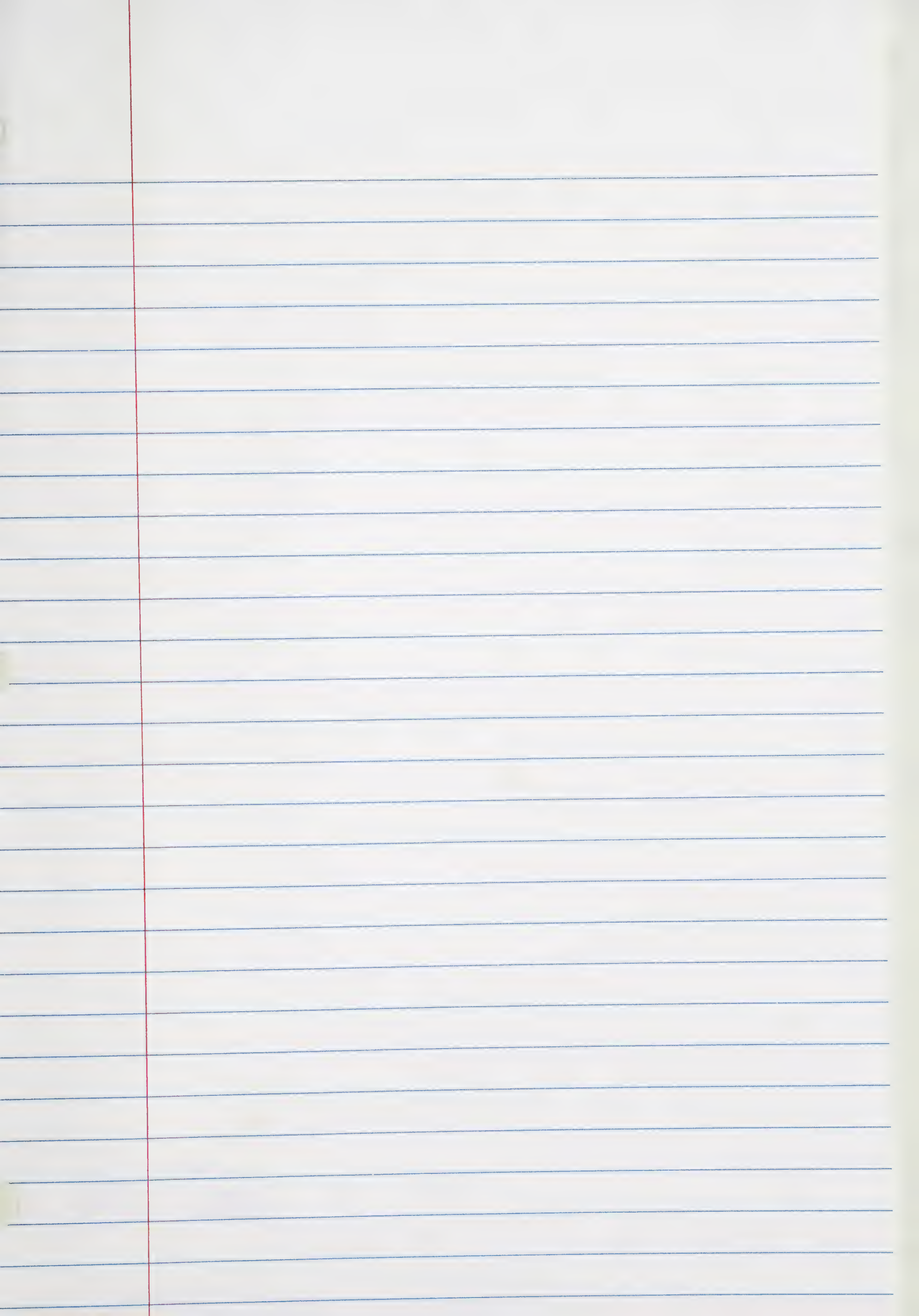
## Hermit Warbler

10 July 1988 Perry Pines, 8.5 mi S of Sycamore Creek field Sta. Nevada Co. Calif.  
Saw ~3 pairs 12 juveniles were seen following adults. I recognized the juveniles by the mottled green check patch on a predominantly yellow cheek. All individuals had white bellies, 2 white wing bars on blue-gray mantle and some of them had black throats of a ♂.  
They did not call I only heard sipping sounds. Heads are predominantly yellow.









Bd as is  
10 7 11 12



















